

### PA05/05441

Manufacturer:

Issue: 4

Prysmian Group

**Valid From:** 09/07/2020 **Review Date:** 08/07/2025

#### **Enhanced Unarmoured Cable For Signalling Power Distribution Systems**

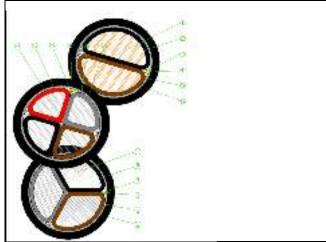
#### **Product Description**

Enhanced Unarmoured Cable with Glass Fibre Weave (FGT) and Water Blocking (WB) for Signalling Power Distribution Systems in accordance with NR/L2/SIGELP/27408.

Product Range consists of Copper and Aluminium conductors. Copper conductors are stranded and Aluminium conductors can be solid (SAC) or stranded (FAC).

These cables were formally manufactured by General Cables. Prysmian Group have acquired General Cables.

#### Typical Product Image



#### Scope of Acceptance: Full Acceptance

Enhanced unarmoured cable shall be constructed and manufactured in accordance with NR/L2/SIGELP/27408 Product Specification for Signalling Power Distribution Cables.

These cables shall be used, installed and tested in accordance with NR/L2/SIGELP/27410 Specification for Class II Based Signalling Power Distribution Systems.

Enhanced unarmoured cable with Solid Aluminium Conductors (SAC) or Stranded [Flexible] Aluminium Conductors (FAC) shall only be installed with connectors, joints and terminations product certified and compliant with relevant Network Rail Standards.

These cables can also be used as a direct replacement for unarmoured rubber cable or unarmoured B2/D2 signalling power distribution cable as specified in RT/E/PS/00005 & BR880 and in accordance with NR/L3/SIGELP/27245 Equivalent Cable Sizes for Signalling Power Distribution Cables.

#### Suspended:

Cables detailed in **Superseded Parts** on this certificate are suspended for future purchase as part of any new works on Network Rail infrastructure, as they no longer meet the requirements of the latest issue of Product Specification NR/L2/SIGELP/27408.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Authorised by:

Samantha Flint
Product Acceptance Coordinator

Felix Langley
Professional Head of Power Distribution HV/LV



PA05/05441

Manufacturer: Issue: 4

Prysmian Group Valid From: 09/07/2020 Review Date: 08/07/2025

#### **Specific Conditions**

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

#### Manufacturer

- 1) Cable shall be manufactured in accordance with the latest issue of NR/L2/SIGELP/27408.
- 2) Enhanced Unarmoured Cable shall be tested in accordance with Manufacturers' production test and inspection schedule and certificate. Production certification testing should be in accordance with manufacturers Standard Operating Procedures (SOP).
- 3) A Production Test and Inspection Certificate shall be supplied with each drum of cable.
- 4) Each cable drum shall be labelled in accordance with NR/L2/SIGELP/27408.
- 5) Manufacturers shall provide installation, operation and maintenance instructions.

#### User

- Enhanced Unarmoured cable shall be installed in accordance with NR/L2/SIGELP/27410 Specification for Class II Based Signalling Power Distribution Systems. Lineside cable should be installed within closed containment for mechanical, environmental and electrical protection in accordance with best practice and where reasonably practical.
- 2) Where Enhanced Unarmoured Cable is used in a Class II Based Signalling Power Distribution System, brass glands (metallic) shall only be used with fully insulated adaptor/reducer (Certificate PA05/05575) when terminating into a Class II FSP Switchgear Assembly. The insulated adaptor reducer shall demonstrate a dielectric strength exceeding 3.5kV, in accordance with NR/L2/SIGELP/27410.
- 3) When Enhanced Unarmoured Cable is to be installed in a Legacy Signalling Power Distribution Systems then flexible conduit and glanding in accordance with NR/L2/SIGELP/27421 and NR/L2/SIGELP/27422 should be used.
- 4) Scissors suitable for use with Glass Fibre Tape (rodent protection) and in accordance with Manufacturer's instructions shall be used to trim excess Glass Fibre Tape prior to making off. Manufacturer's installation guidance shall be read and understood prior to any installation.
- Gloves and suitable protective eyewear shall be worn while unwrapping and preparing the cable in accordance with the Manufacturer's instructions. Manufacturer's installation guidance shall be read and understood prior to any installation.
- 6) Installers shall construct Enhanced Unarmoured Cabling termination in accordance with cable, connectors and joint manufacturer's instructions and guidance. Good installation practice is essential to prevent oxidation at termination between any conductor and connector or joint. Oxidation may result in a high resistance connection. NR/L2/SIGELP/27423 Product Specification for Connectors and Joints for Signalling Power Cables shall be followed.
- 7) Installers and maintainers shall have access to training manuals/briefing notes and shall have had an appropriate level of training and briefing before using products detailed within this certificate.
- 8) Cable to be installed and maintained in accordance with manufacturer's provided guidance documentation.
- 9) No reworking of Aluminium conductors is permitted. Any remedial work requires the connector and cable end to be discarded.



PA05/05441

Manufacturer: Issue: 4

Prysmian Group Valid From: 09/07/2020 Review Date: 08/07/2025

## **Product Configuration**

#### **Notes**

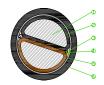
Abbreviation	Description
CU	Copper Conductor
SAC	Solid Aluminium Conductor
FAC	Stranded [Flexible] Aluminium Conductor
XLPE	Cross-linked Polyethylene
FGT	Fibre Glass Tape
WB	Water Blocking
PVC	Polyvinyl Chloride

### 2-Core Copper Enhanced Unarmoured Cable (Cu)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
-			10	006/186019
1805.00.00.012			16	006/186020
1858212			25	006/186021
1858213			35	006/186022
1858214	2 Core CU / XLPE / WB/ FGT / WB	DVC	50	006/186023
1858215	2 COIE CO / ALPE / WB/ PGT / WB	PVC	70	006/186024
20337773			95	006/186025
1858217			120	006/186026
1858218			150	006/186103
1858219			185	006/186104

### 2-Core Solid Aluminium Enhanced Unarmoured Cable (SAC)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm²)	Catalogue No.
-			16	006/186035
50003966			25	006/186036
50003967	2 Core SAC / XLPE / WB/ FGT / WB	PVC	35	006/186037
1865214	2 Core SAC / ALPE / WB/ FGT / WB	FVC	50	006/186038
1865215			70	006/186039
1865216			95	006/186040



PA05/05441

Manufacturer: Issue: 4

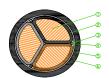
Prysmian Group Valid From: 09/07/2020
Review Date: 08/07/2025

#### 2-Core Stranded Aluminium Enhanced Unarmoured Cable (FAC)



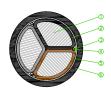
Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
1865217			120	006/186013
1865218	2 Core FAC / XLPE / WB/ FGT / WB	PVC	150	006/186014
1865219			185	006/186015

### 3-Core Copper Enhanced Unarmoured Cable (Cu)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
-			10	006/186111
18.05.00.00.043			16	006/186112
1858312			25	006/186113
1858313	3 Core CU / XLPE / WB/ FGT / WB		35	006/186114
1858314		PVC	50	006/186115
1858315		FVC	70	006/186116
1858316			95	006/186117
1858317			120	006/186118
1858318			150	006/186106
1858319			185	006/186107

### 3-Core Solid Aluminium Enhanced Unarmoured Cable (SAC)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
18.05.00.00.046			16	006/186127
18.05.00.00.047	3 Core SAC / XLPE / WB/ FGT / WB		25	006/186128
18.05.00.00.025		PVC	35	006/186129
1865314		FVC	50	006/186130
1865315			70	006/186131
1865316			95	006/186132

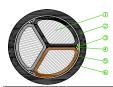


## PA05/05441

Manufacturer: Issue: 4

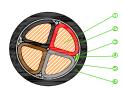
Prysmian Group Valid From: 09/07/2020
Review Date: 08/07/2025

#### 3-Core Stranded Aluminium Enhanced Unarmoured Cable (FAC)



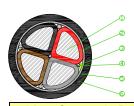
Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
1865317			120	006/186141
1865318	3 Core FAC / XLPE / WB/ FGT / WB	PVC	150	006/186142
1865319			185	006/186143

### 4-Core Copper Enhanced Unarmoured Cable (Cu)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm²)	Catalogue No.
-			10	006/186147
18.05.00.00.044			16	006/186148
1858412			25	006/186149
1858413	4 Core CU / XLPE / WB/ FGT / WB		35	006/186150
1858414		PVC	50	006/186151
1858415		PVC	70	006/186152
1858416			95	006/186153
1858417			120	006/186154
1858418			150	006/186108
1858419			185	006/186109

### 4-Core Solid Aluminium Enhanced Unarmoured Cable (SAC)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm <sup>2</sup> )	Catalogue No.
1865414			50	0006/186166
1865415	4 Core SAC / XLPE / WB/ FGT / WB	PVC	70	0006/186167
1865416			95	0006/186168

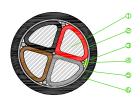


## PA05/05441

Manufacturer: Issue: 4

Prysmian Group **Valid From**: 09/07/2020 **Review Date**: 08/07/2025

### 4-Core Stranded Aluminium Enhanced Unarmoured Cable (FAC)



Manufacturer's Part No.	Description	Sheath Material	Cross-section Area (mm²)	Catalogue No.
18.05.00.00.048			16	006/186163
18.05.00.00.049	4 Core FAC / XLPE / WB/ FGT / WB		25	006/186164
18.05.00.00.038		PVC	35	006/186165
1865417		PVC	120	006/186177
1865418			150	006/186178
1865419			185	006/186179

**Superseded Parts** 

Part No.	Description	Catalogue No.
TBD When Ordering	2 CORE, 6SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140002
TBD When Ordering	2 CORE, 6SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140003
TBD When Ordering	3 CORE, 6SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140004
TBD When Ordering	3 CORE, 10SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140005
TBD When Ordering	3 CORE, 16SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140006
TBD When Ordering	3 CORE, 25SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140007
TBD When Ordering	3 CORE, 35SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140008
TBD When Ordering	3 CORE, 50SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140009
TBD When Ordering	3 CORE, 70SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140010
TBD When Ordering	3 CORE, 95SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140011
TBD When Ordering	3 CORE, 120SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/140012
TBD When Ordering	3 CORE, 6SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140013
TBD When Ordering	3 CORE, 10SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140014
TBD When Ordering	3 CORE, 16SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140015
TBD When Ordering	3 CORE, 25SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140016
TBD When Ordering	3 CORE, 35SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140017
TBD When Ordering	3 CORE, 50SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140018
TBD When Ordering	3 CORE, 70SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140019
TBD When Ordering	3 CORE, 95SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140020
TBD When Ordering	3 CORE, 120SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/140021
TBD When Ordering	3 CORE, 16SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140022
TBD When Ordering	3 CORE, 25SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140023
TBD When Ordering	3 CORE, 35SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140024
TBD When Ordering	3 CORE, 50SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140025
TBD When Ordering	3 CORE, 70SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140026
TBD When Ordering	3 CORE, 95SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140027
TBD When Ordering	3 CORE, 120SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/140028
TBD When Ordering	3 CORE, 16SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140029
TBD When Ordering	3 CORE, 25SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140030
TBD When Ordering	3 CORE, 35SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140031
TBD When Ordering	3 CORE, 50SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140032
TBD When Ordering	3 CORE, 70SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140033



## PA05/05441

Manufacturer: Issue: 4

Prysmian Group **Valid From**: 09/07/2020 **Review Date**: 08/07/2025

Part No.	Description	Catalogue No.
TBD When Ordering	3 CORE, 95SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140034
TBD When Ordering	3 CORE, 120SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/140035
TBD When Ordering	4 CORE, 6SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147003
TBD When Ordering	4 CORE, 10SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147004
TBD When Ordering	4 CORE, 16SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147005
TBD When Ordering	4 CORE, 25SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147006
TBD When Ordering	4 CORE, 35SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147007
TBD When Ordering	4 CORE, 50SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147008
TBD When Ordering	4 CORE, 70SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147009
TBD When Ordering	4 CORE, 95SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147010
TBD When Ordering	4 CORE, 120SQMM CU,XLPE,FGT,PVC 0.6/1 KV	006/147011
TBD When Ordering	4 CORE, 6SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147012
TBD When Ordering	4 CORE, 10SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147013
TBD When Ordering	4 CORE, 16SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147014
TBD When Ordering	4 CORE, 25SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147015
TBD When Ordering	4 CORE, 35SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147016
TBD When Ordering	4 CORE, 50SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147017
TBD When Ordering	4 CORE, 70SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147018
TBD When Ordering	4 CORE, 95SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147019
TBD When Ordering	4 CORE, 120SQMM CU, XLPE, FGT, LS0H 0.6/1 KV	006/147020
TBD When Ordering	4 CORE, 16SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147021
TBD When Ordering	4 CORE, 25SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147022
TBD When Ordering	4 CORE, 35SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147023
TBD When Ordering	4 CORE, 50SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147024
TBD When Ordering	4 CORE, 70SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147025
TBD When Ordering	4 CORE, 95SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147026
TBD When Ordering	4 CORE, 120SQMM SAC, XLPE, FGT, PVC 0.6/1 KV	006/147027
TBD When Ordering	4 CORE, 16SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147028
TBD When Ordering	4 CORE, 25SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147029
TBD When Ordering	4 CORE, 35SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147030
TBD When Ordering	4 CORE, 50SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147031
TBD When Ordering	4 CORE, 70SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147032
TBD When Ordering	4 CORE, 95SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147033
TBD When Ordering	4 CORE, 120SQMM SAC, XLPE, FGT, LS0H 0.6/1 KV	006/147034

### **Assessed Documentation**

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
	PA05/05441 Product Acceptance Submittal	3	23/02/2013	1
	Acceptance process details	3	23/02/2013	1
	Compliance with standards	3	23/02/2013	1
	Product reliability	3	23/02/2013	1
	Configuration Data	3	23/02/2013	1
	Appendix A1 - BSI Certificate Of Registration-ISO 9001 2008	3	23/02/2013	1
	Appendix A2 - Basic Approval	3	23/02/2013	1



# PA05/05441

Manufacturer: Issue: 4

 Valid From :
 09/07/2020

 Review Date:
 08/07/2025

Reference	Title		Date and Applies to Cert. issue No.	
	Appendix A3 - ERA impact Testing Report	3	23/02/2013	1
	Appendix B - NRL2ELP27408 Compliance Matrix	3	23/02/2013	1
	Appendix C1 - Aluminium Two Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C2 - Aluminium Two Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C3 - Aluminium Three Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C4 - Aluminium Three Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C5 - Aluminium Four Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C6 - Aluminium Four Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C7 - Copper Two Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C8 - Copper Two Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C9 - Copper Three Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C10 - Copper Three Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C11 - Copper Four Round Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix C12 - Copper Four Sectoral Cores - Cable Section Drawing	3	23/02/2013	1
	Appendix D1 - Aluminium Two Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D2 - Aluminium Two Sectoral Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D3 - Aluminium Three Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D4 - Aluminium Three Sectoral Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D5 - Aluminium Four Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D6 - Aluminium Four Sectoral Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D7 - Copper Two Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D8 - Copper Two Sectoral Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D9 - Copper Three Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D10 - Copper Three Sectoral Cores LSOH - Cable Section Drawing	3	23/02/2013	1
	Appendix D11 - Copper Four Round Cores LSOH - Cable Section Drawing	3	23/02/2013	1



## PA05/05441

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Reference	eference Title		Date and Applies to Cert. issue No.	
	Appendix D12 - Copper Four Sectoral Cores	Rev.	23/02/2013	1
	LSOH - Cable Section Drawing	Ŭ	20/02/2010	
	Appendix E1 - NRL2ELP27408 - IEC60502-1	1 3 23/02/2013		1
	Type Test Report			
	Appendix E2 - Quality Plan Aluminium	3 23/02/2013 1		1
	conductors LSOH sheathed cables			
	Appendix E3 - Quality Plan Aluminium	3	23/02/2013	1
	conductors PVC sheathed cables			
	Appendix E4 - Quality Plan Copper conductors	3	23/02/2013	1
	LSOH sheathed cables			
	Appendix E5 - Quality Plan Copper conductors	3	23/02/2013	1
	PVC sheathed cables			
	Appendix F1 - Technical Data Sheet TDS	3	23/02/2013	1
	LS0H Cables			
	Appendix F2 - Technical Datasheet TDS PVC	3	23/02/2013	1
	Sheathed Cables		22/22/22/2	
	PA05_05411 AR Sponsor Evidence Report	1	23/02/2013	1
	Engineering Verification and Validation matrix		18/04/2018	3
	Compliance commentary spreadsheet		18/04/2018	3
Folder 3	GA Drawings for all additional configurations		18/04/2018	3
	Example cable marking		18/04/2018	3
CER18006	Declaration of compliance specific to water		18/04/2018	3
5.11.0	blocking powder		40/04/0040	
Folder 6	Internal Type test reports:		18/04/2018	3
	Bending test report 18/04/20			3
	Type test report NR/L2/SIGELP/27408		18/04/2018 3	
	Type test report BS 7889		18/04/2018 3	
	Scanner register of thickness – 2X50 AL		18/04/2018 3	
Folder 7	External Type test reports:	18/04/2018		3
Folder 8	Quality documentation:	18/04/2018		3
	ISO 9001		18/04/2018 3	
	ISO 14000		18/04/2018	3
F-14 0	OSHAS 18001		18/04/2018	3
Folder 9	Images		18/04/2018	3
Folder 10	O&M Manuals:		18/04/2018	3
	Additional information to O&M		18/04/2018	3
	Additional information – general		18/04/2018	3
Folder 11	Manual handling and storage		18/04/2018	3
Folder 11	Data sheets for all additional configuration items		18/04/2018	3
	Correspondence between Matthew Blakeburn		09-07-20	
	and Martin Cooper re. Acquisition of General			4
	Cables – range extended.			



PA05/05441

Manufacturer: Issue: 4

Prysmian Group Valid From: 09/07/2020 Review Date: 08/07/2025

### **Manuals and Training Materials**

Reference	Title	Doc. Rev.	Date and A to Cert. issu	
APEX - ERA	Damage withstand capability for 2-core cables		18/04/2018	3

### **Certificate History**

Issue	Date	Issue History
1	11/04/2013	First accepted for use
2	15/05/2017	2-core cables suspended from future purchase, excepting CSA 6mm <sup>2</sup>
3	18/04/2018	Addition of cables compliant with requirements NR/L2/SIGELP/27408
		Issue 3: Signalling Power Distribution Cables.
		Suspension of Cables not compliant to latest issue.
4	09/07/2020	Prysmian Group acquisition of General Cables - Cable range extended

#### **Contact Details**

#### **Manufacturer**

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#### **Sponsor**

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PA05/05441

Manufacturer: Issue: 4

#### **General Terms & Conditions**

#### 1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance, the Professional Head or nominated delegate. Any alterations made by a other persons will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

#### 2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance:
- a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
- b. Of any intended change to the accepted product; changes include:
- i. a change to the product configuration (to the actual product or its application);
- ii. a variation to or addition of manufacturing locations or processes;
- iii. a change in the name or ownership of the manufacturing company;
- iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance or National Supply Chain (NSC) at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.

  6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

#### 3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application)
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.



PA05/05441

Manufacturer: Issue: 4

7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.

8) Users are to be aware that Product Acceptance is not a substitute for design approval.

#### 4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

- 1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations
- 2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:
- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

- 3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.
- 4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

#### 5) Supply Chain Arrangements

- 1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.
- 2) Products may be purchased by Network Rail or its agents, suppliers or contractors.
- 3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.