

正本

交通部鐵道局 函

33743

桃園市大園區領航北路四段251號

受文者：台灣軌道工程學會

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速別：普通件

密等及解密條件或保密期限：

附件：各單位建議回復表、我國鐵道類標準整體架構(含參考標準)

主旨：檢送「我國鐵道類標準整體架構(含參考標準)及其成果運用建議」各單位建議回復表及「我國鐵道類標準整體架構(含參考標準)」各1份，請查照。

說明：

- 一、隨函檢附各單位建議回復表及修正後之「我國鐵道類標準整體架構(含參考標準)」，另請相關學/協會協助將相關資料轉知所屬會員。
- 二、本標準架構後續將依程序提報交通部轉各相關單位依循。

正本：行政院公共工程委員會、經濟部標準檢驗局、臺北市政府捷運工程局、新北市政府捷運工程局、基隆市政府交通處、桃園市政府捷運工程局、臺中市公共運輸及捷運工程處、臺南市捷運工程處、高雄市政府捷運工程局、臺北大眾捷運股份有限公司、新北大眾捷運股份有限公司、桃園大眾捷運股份有限公司、臺中捷運股份有限公司、高雄捷運股份有限公司、台灣高速鐵路股份有限公司、財團法人工業技術研究院、中華軌道車輛工業發展協會、台灣軌道工程學會、中興工程顧問股份有限公司、中鼎工程股份有限公司、台灣世曦工程顧問股份有限公司、交通部路政司、交通部臺灣鐵路管理局、本局規劃組、土木建築組、機電技術組、工程管理組、軌道產業推動專案小組

副本：

代理局長 伍勝園

8/11收文

「我國鐵道標準整體架構(含參考標準)建議及其成果運用規劃」各單位建議回復表

項次	研提單位	建議修正意見	建議之理由說明	鐵道局/工研院回覆說明
1.	北捷公司	page 2. 2 階項目「鐵路車輛銲接」建議修正為：「銲接」。page 11 一併修正。	屬於車輛系統，無須再敘明「鐵路車輛」。	經查，銲接除「鐵路車輛銲接」外，亦有「軌道銲接」，未免兩者混淆，建議維持「鐵路車輛銲接」。
2.	北捷公司	page 2. 2 階項目「電磁相容」建議改列 page 3 及 page 60. 1 階項目「其他設計/性能」之 2 階項目。	屬於「電磁相容」範疇。	依建議修正於 P3 及 P52。
3.	北捷公司	page 10. 2 階項目「駕駛室」之 EN 15892 : 2011 「Railway applications - Noise Emission - Measurement of noise inside driver's cabs」，建議改列 page 14. 2 階項目「噪音/振動測試」。	主要係「噪音」測試。	該標準係駕駛室之噪音試驗，爰維持同時收錄於「駕駛室」及「噪音/振動測試」分類中，詳見 P10 及 P16。
4.	北捷公司	page 21. 2 階項目「噪音/振動測試」之 EN 16989 : 2018 「Railway applications - Fire protection on railway vehicles - Fire behaviour test for a complete seat」，建議改列 page 52. 1 階項目「鐵路車輛防火」，增列 2 階項目「防火測試」。	主要內容係「防火」，屬於車輛系統，無須再敘明「鐵路車輛」。	1. 依建議修正於 P50。 2. 參考相關標準標題與 CNS16108-1 標題，建議仍維持「鐵路車輛防火」。詳見 P50。
5.	北捷公司	page 21. 2 階項目「噪音/振動測試」之 EN 17084 : 2018 「Railway applications - Fire protection on railway vehicles - Toxicity test of materials and components」，建議改列 page 52. 1 階項目「鐵路車輛防火」，增列 2 階項目「防火測試」。	主要內容係「防火」。	1. 依建議修正於 P50。 2. 參考相關標準標題與 CNS16108-1 標題，建議仍維持「鐵路車輛防火」。詳見 P50。
6.	北捷公司	page 2. 1 階項目，建議增列 2 階項目「換流器(inverter)/截波器(chopper)」。	「換流器(inverter)」為交流牽引系統的重要部分，「截波器(chopper)」為直流牽引系統的重要部分。	依建議修正於 P2 及 P38。
7.	北捷公司	page 39. 2 階項目「車載供電」之 CNS 61373(IEC 61373 : 2010/EN 61373:2010)「鐵路應用 - 鐵路車輛設備 - 衝擊及振動試驗」，建議改列 page 14. 車體之 2 階項目「振動噪音測試」。	理由：主要內容係「振動」。	依建議修正於 P14。
8.	北捷公司	page 40. 2 階項目「車載供電」之 IEC 60913 : 2013 「Railway applications - Fixed installations - Electric traction overhead contact lines」，建議改列供電系統。	屬於供電系統，非屬於電聯車。	依建議修正於 P60。

「我國鐵道類標準整體架構(含參考標準)建議及其成果運用規劃」各單位建議回復表

附件 1

項次	研提單位	建議修正意見	建議之理由說明	鐵道局/工研院回覆說明
9.	北捷公司	page 40, 2 階項目「車載供電」之 IEC 62236-3-2: 2018(EN 50121-3-2:2016)「Railway applications -Electromagnetic compatibility -Part 3-2: Rolling stock -Apparatus」, 建議改列 page 60, 1 階項目「其他/設計/性能」。 page 3 及 page 60, 1 階項目「其他/設計/性能」請增列 2 階項目「電磁相容」。	電氣相關項目皆須考量電磁相容。	均依建議修正於 P52。
10.	北捷公司	page 41, 2 階項目「車載供電」之 IEC :2002(EN 50126 Series :2017)「Railway applications -Specification and demonstration of reliability, availability, maintainability and safety (RAMS)」, 建議改列 page 60, 1 階項目「可靠度/維修度」。 page 3 及 page 60, 1 階項目「其他/設計/性能」請增列 2 階項目「可靠度/維修度」。	相關項目皆須考量可靠度/維修度。	經查, 該標準係屬「整體鐵道驗證系統」之分類, 已從 P41 中刪除, 並改列於 P106。
11.	北捷公司	page 46, 2 階項目「車載儲能」之 IEC 60077-3: 2019(EN 60077-3)「Railway applications - Electric equipment for rolling stock -Part 3: Electrotechnical components -Rules for DC circuit-breakers」, 建議改列 page 46, 2 階項目「斷路器」。	屬於「斷路器」。	已依意見修正於 P44。
12.	北捷公司	page 3, 1 階項目「入口系統」建議修正為: 「車門系統」, page 48 一併修正。 另 page 3, 2 階項目「車門」建議修正為: 「車廂門」、「駕駛室門」及「緊急逃生門」。	國內軌道車輛甚少採用「入口系統」之術語。	1. 依意見修正於 P3 及 P46。 2. 經檢視, 相關標準均未依車廂門、駕駛室門及緊急逃生門作區分, 為免造成混淆, 建議修正 2 階項目為「車側出入口系統」。詳見 P46。
13.	北捷公司	page 48, 2 階項目, CNS 15969(EN 12663-1: 2010+AI: 2014)「機車及客車軌道車輛車體結構要求」, 建議改列 page 11, 2 階項目「車體設計」。	屬於「車體」範疇。	經查, 該標準係屬「車體」, 已修正於 P10。
14.	北捷公司	page 48, 2 階項目「車門」之 CNS 16108-2(EN 45545-2: 2020)「鐵路應用 - 鐵路車輛防火 - 第 2 部: 材料及零組件火災時之行為要求」, 建議改列 page 52, 「鐵路車輛防火」。	屬於「防火」範疇。	該標準內容涉及「車門」與「防火」, 爰同時收錄於此 2 種分類中, 詳見 P47 及 P50。

「我國鐵道類標準整體架構(含參考標準)建議及其成果運用規劃」各單位建議回復表

項次	研提單位	建議修正意見	建議之理由說明	鐵道局/工研院回覆說明
15.	北捷公司	page 50 · 2 階項目「車門」之 IEC 62236-3-2 : 2018(EN 50121-3-2 ; 2016)「Railway applications-Electromagnetic compatibility -Part 3-2 : Rolling stock -Apparatus」，建議改列 page 60 · 2 階項目「電磁相容」。	屬於「電磁相容」範疇。	已依意見修正於 P52。
16.	高捷公司	P5 號誌系統2階子系統車載號誌設備的signalling建議修正為 signalling。		已依意見修正於 P5。
17.	高捷公司	P8 智慧鐵道2階子系統通訊安全的Commutation建議修正為 Communication。		已依意見修正於 P8。

附件
I



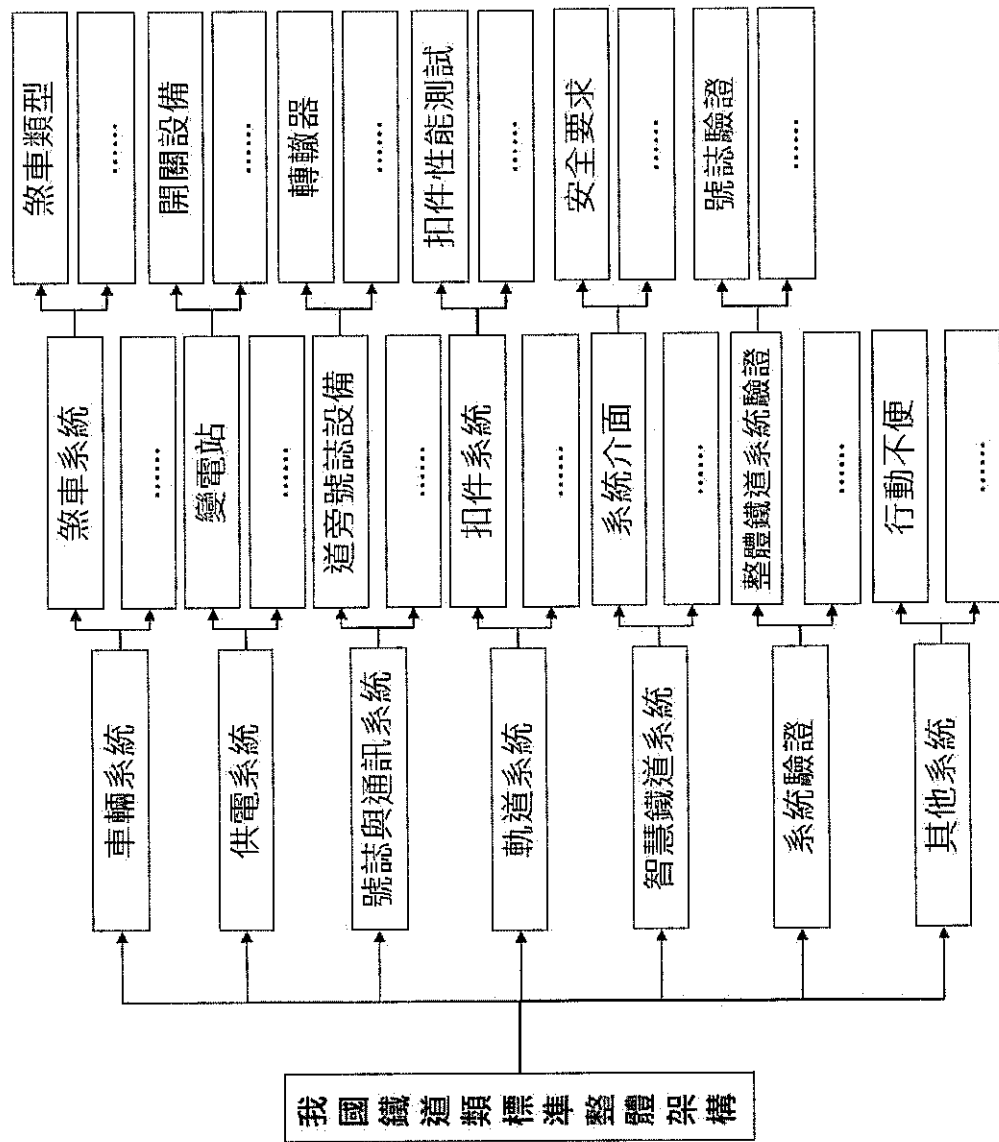
「軌道技術研究暨驗證中心計畫」
細部設計暨相關技術顧問服務

我國鐵道類標準整體架構(含參考標準)

交 通 部 鐵 道 局 委 託
台 灣 世 曦 工 程 顧 問 股 份 有 限 公 司 辦 理
工 業 技 術 研 究 院 量 測 技 術 發 展 中 心

中華民國 110 年 08 月

我國鐵道類標準整體架構(含參考標準)



我國鐵道類標準整體架構分類原則係以國際/區域之標準及 CNS 標準為主，依照系統、子系統、零組件等作為樹狀結構的分類基礎，而第一階標準為該類之主幹標準，每一類的階層再連結相關的規範標準，包含設計、製造、測試與檢驗(含安全等驗證)之相關標準。

車輛系統
(Vehicle)-1/2

1階子系統

車體
Vehicle body

照明
Lighting

轉向架
Bogies

空調系統
Air conditioning system

煞車系統
Brake system

列車控制與管理系統
TCMS

牽引系統
Traction system

2階子系統

駕駛室
Driver's cab

車內照明
Interior lighting

懸吊零組件
Suspension components

車輛空調
Vehicle air conditioning

煞車類型
Brake type

列車控制與管理系統
TCMS

牽引供電
Traction power supply

車體設計
Vehicle design

車外照明
Exterior lighting

車輪組/軸箱
Wheel set/Axle boxes

駕駛室空調
Driving cabs air conditioning

煞車零組件
Brake components

牽引電動機
Traction motor

鐵路車輛焊接
Welding of railway vehicles

其他
Others

煞車力傳送
Brake force transmission

換流器/斬波器
Inverter/Chopper

車間通道
Gangway

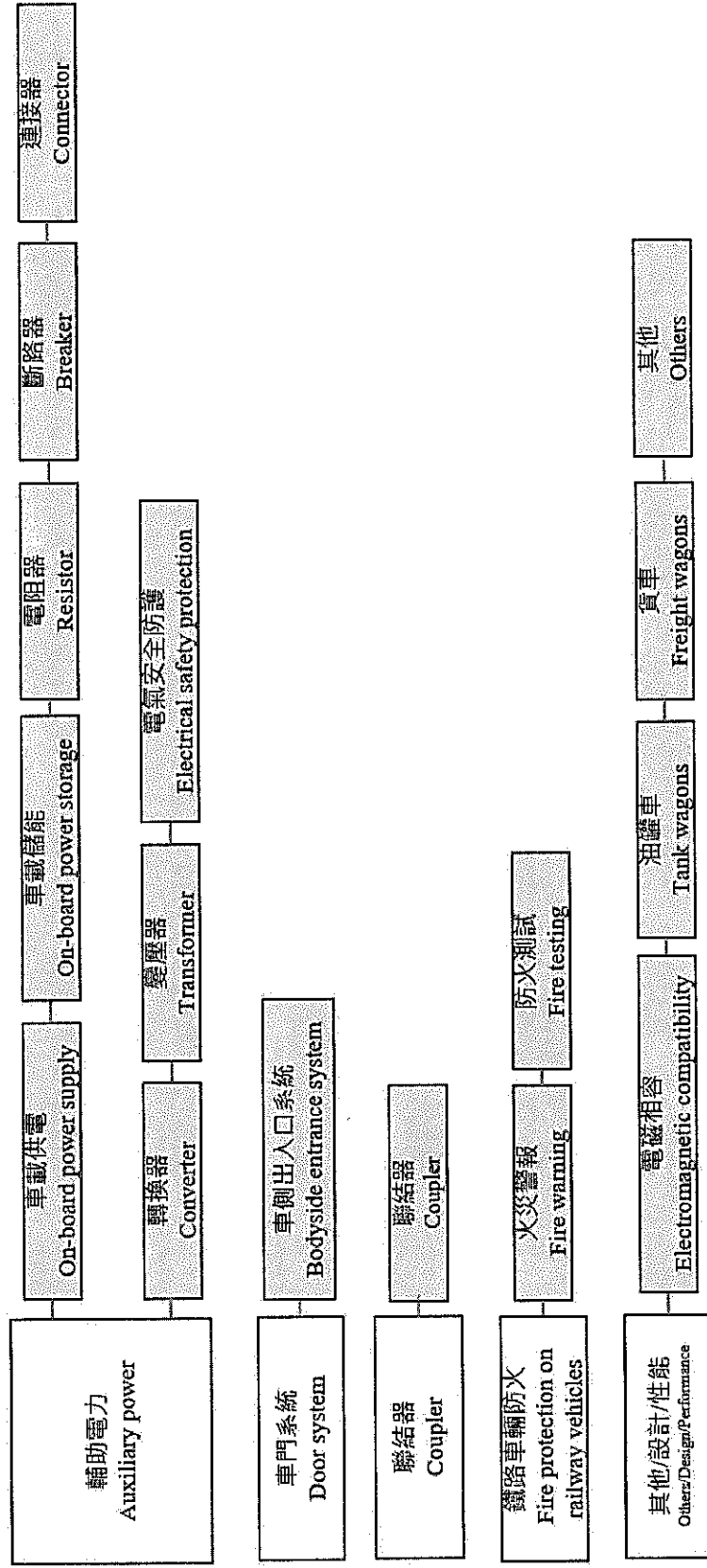
其他
Others

噪音/振動測試
Noise/Vibration test

車輛系統
(Vehicle)-2/2

1階子系統

2階子系統



供電系統
(Power supply)

1階子系統

架空線
Overhead line

變電站
Substation

電力品質
Power quality

絕緣防護
Insulation and protection

第三軌
Third rail

電纜
Cable

其他
Others

2階子系統

設備/元件
Facilities and components

開關設備
Switchgear

雜散電流
Stray current

絕緣
Insulation

第三軌
Third rail

電纜
Cable

其他
Others

變壓器
Transformer

突波
Surge

防護
Protection

變比器(P/CT)
Instrument transformer

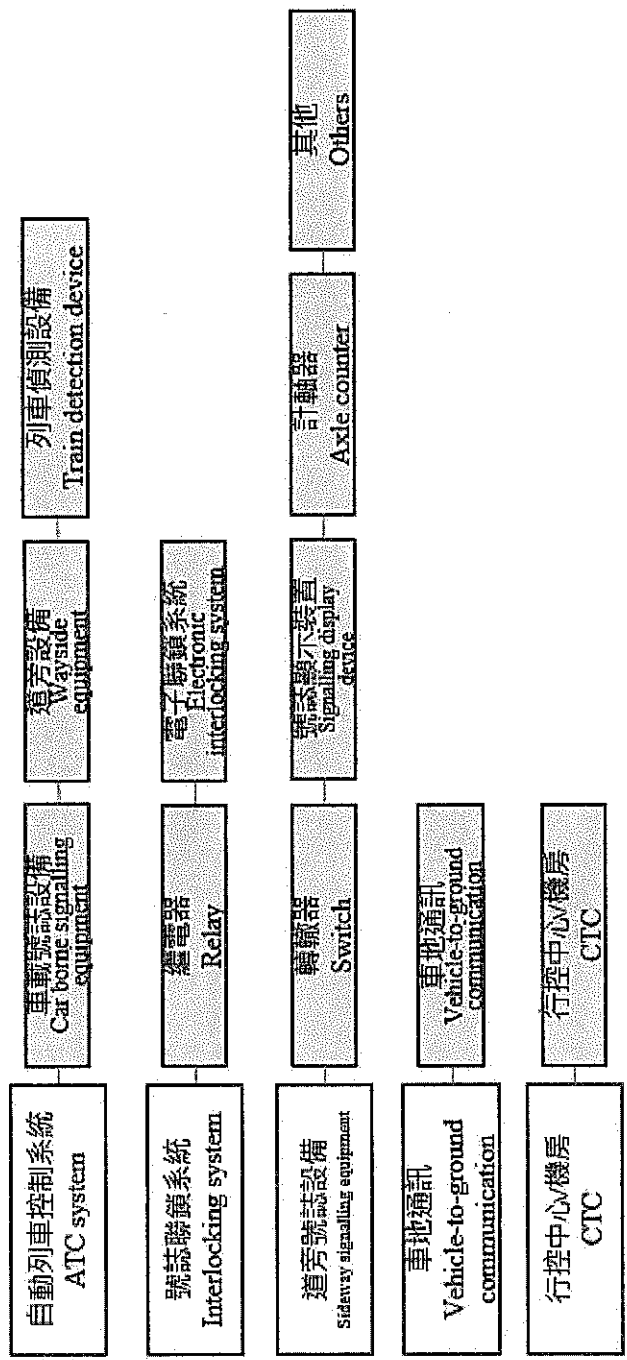
諧波
Harmonics

整流器
Converter

號誌與通訊系統
(Signalling and communication system) -1/2

號誌系統
(Signalling system)

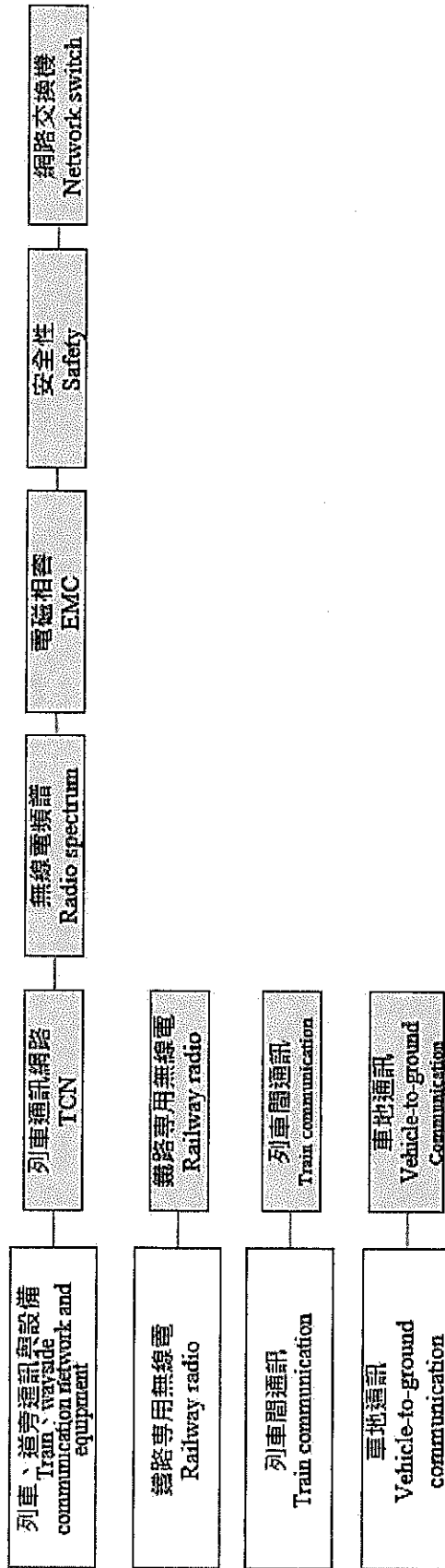
1 階子系統 2 階子系統



號誌與通訊系統
(Signalling and communication system)-2/2

通訊系統
(Communication system)

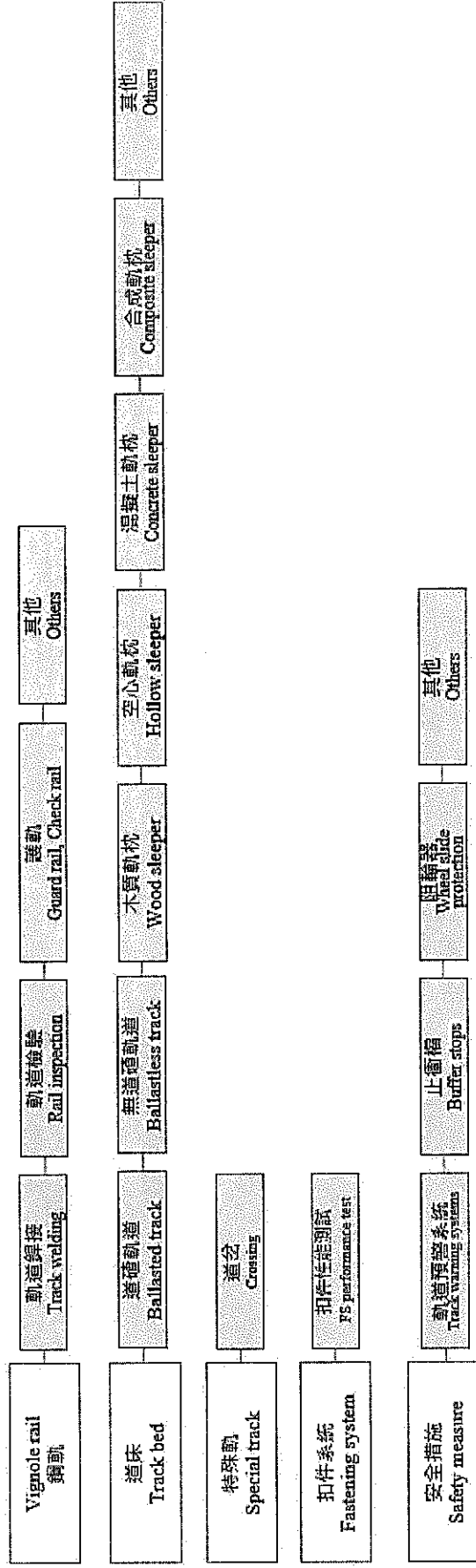
1階子系统 2階子系统



軌道系統 (Track)

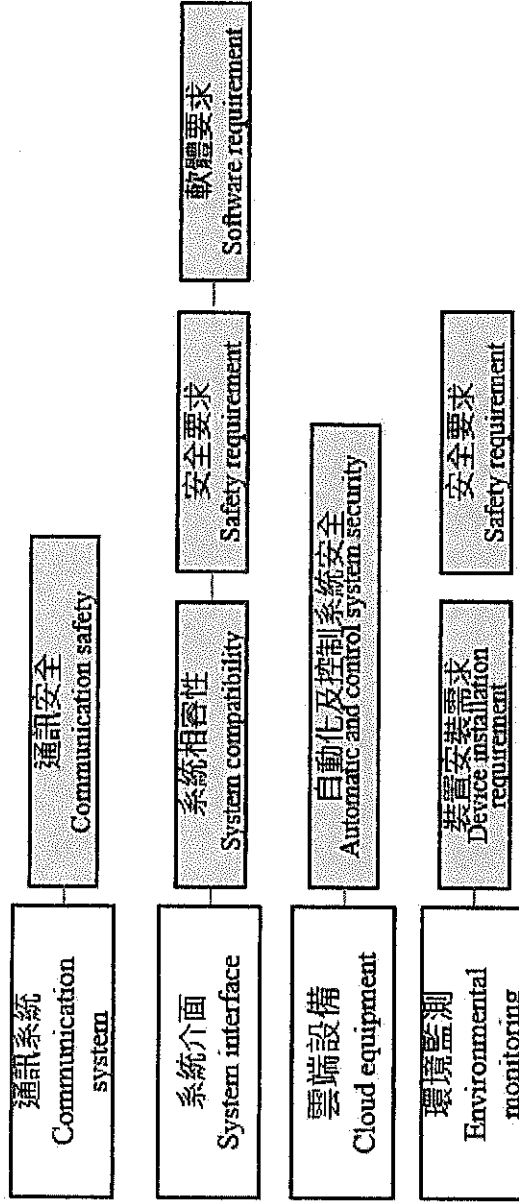
1階子系統

2階子系統



智慧鐵道
(Intelligence of rail)

1階子系統 2階子系統



系統驗證
(RAMS)

其他
(Others)

1階子系統

整體鐵道系統驗證
Total railway
system RAMS

2階子系統

號誌驗證
Signalling RAMS

通訊驗證
Communication
RAMS

車輛驗證
Vehicle RAMS

供電驗證
Power supply RAMS

軌道安全
Track safety

系統風險與評估
System risk evaluation

1階子系統

一般機電系統
General EM system

標誌與標示
Logos and signs

空氣動力學
Aerodynamics

工程圖要求
Drawings

行動不便
PRM

安全要求
Safety

品質管理系統
Quality
management system

■ 車輛系統

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
車體 Vehicle body	CNS 15969 (EN 12663-1:2010+A1:2014)	機車及客車軌道車輛車體 結構要求	駕駛室 Driver's cab	EN 15892:2011	Railway applications - Noise Emission - Measurement of noise inside driver's cabs.
	EN 1999-1-1:2007	Eurocode 9 Design of aluminum structures- General rules and rules for buildings		EN 16186-1:2014 + A1:2018	Railway applications - Driver's cab - Part 1: Anthropometric data and visibility
	EN 1999-1-2:2007/AC:2009	Eurocode 9 Design of aluminum structures Structures susceptible to fatigue		EN 16186-2:2017	Railway applications - Driver's cab - Part 2: Integration of displays, controls and indicators
	EN 14363:2016 + A1:2018	Railway applications - Testing and Simulation for the acceptance of running characteristics of railway vehicles - Running Behaviour and stationary tests		EN 16186-3:2016 + A1:2018	Railway applications - Driver's cab - Part 3: Design of displays
	EN 15227:2020	Railway applications -		EN 16186-4:2019	Railway applications - Driver's

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Crashworthiness requirements for railway vehicle bodies			cab - Part 4: Layout and access
	EN 45502-2-1:2003	Active implantable medical devices - Part 2-1: Particular requirements for active implantable medical devices intended to treat bradyarrhythmia (cardiac pacemakers)	車體設計 Vehicle design	EN 15551:2017	Railway applications - Railway rolling stock - Buffers
				EN 16839:2017	Railway applications - Rolling stock - Head stock layout
				EN 15273-1:2013 + A1:2016 / AC:2017	Railway applications - Gauges - Part 1: General - Common rules for infrastructure and rolling stock
				EN 15273-2:2013 + A1:2016	Railway applications - Gauges - Part 2: Rolling stock gauge
			鐵路車輛銲接	CNS 16129-1 (EN 15085-1)	鐵路應用－鐵路車輛及其零組件之銲接－第 1 部:通則
			Welding of railway vehicles	CNS 16129-2 (EN 15085-2)	鐵路應用－鐵路車輛及其零組件之銲接－第 2 部:銲接製造廠商品質要求及驗證
				CNS 16129-3	鐵路應用－鐵路車輛及其零組

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				(EN 15085-3)	件之銲接—第 3 部:設計要求
				CNS 16129-4 (EN 15085-4)	鐵路應用—鐵路車輛及其零組件之銲接—第 4 部:生產要求
				CNS 16129-5 (EN 15085-5)	鐵路應用—鐵路車輛及其零組件之銲接—第 5 部:檢驗、測試及文件化
				ISO 3834-1:2005	Quality requirements for fusion welding of metallic materials — Part 1: Criteria for the selection of the appropriate level of quality requirements
				ISO 3834-2:2005	Quality requirements for fusion welding of metallic materials — Part 2: Comprehensive quality requirements
				ISO 3834-3:2005	Quality requirements for fusion welding of metallic materials — Part 3: Standard quality requirements
				ISO 3834-4:2005	Quality requirements for fusion welding of metallic materials — Part 4: Elementary quality requirements

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				ISO 3834-5:2015	Quality requirements for fusion welding of metallic materials — Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4
				EN ISO 15610:2003	Specification and qualification of welding procedures for metallic materials — Qualification based on tested welding consumables
			車間通道 Gangway	EN 16116-1:2013	Railway applications - Design requirements for steps, handrails and associated access for staff - Part 1: Passenger vehicles, luggage vans and locomotives
				EN 16116-2:2013	Railway applications - Design requirements for steps, handrails and associated access for staff - Part 2: Freight wagons
				EN 16286-1:2013	Railway applications - Gangway systems between vehicles - Part 1:

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Main applications
				EN 16286-2:2013	Railway applications - Gangway systems between vehicles - Part 2: Acoustic measurements
				CNS 61373 (IEC 61373:2010 / EN 61373:2010)	鐵路應用－鐵路車輛設備－衝擊及振動試驗
				ISO 1999:2013	Acoustics — Estimation of noise-induced hearing loss
				ISO 2631 series:1997	Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration - ALL PARTS
			噪音/振動測試 Noise/ Vibration test	ISO 3095:2013	Acoustics - Railway applications - Measurement of noise emitted by railbound vehicles
				ISO 3381:2005	Railway applications - Acoustics - Measurement of noise inside railbound vehicles
				ISO 5349-1:2001	Mechanical vibration — Measurement and evaluation of human exposure to

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					hand-transmitted vibration — Part 1: General requirements
				ISO 5349-2:2001	Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 2: Practical guidance for measurement at the workplace
				ISO 11201:2010	Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections
				IEC 60268-16:2020	Sound system equipment - Part 16: Objective rating of speech intelligibility by speech transmission index
				EN 14253:2003+A1:2007	Mechanical vibration - Measurement and calculation of occupational exposure to

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					whole-body vibration with reference to health - Practical guidance
				EN 15153-2:2020	Railway applications - External visible and audible warning devices - Part 2: Warning horns for heavy rail
				EN 15153-4:2020	Railway applications - External visible and audible warning devices - Part 4: Audible warning devices for urban rail
				EN 15461:2008+A1:2010	Railway applications - Noise emission - Characterisation of the dynamic properties of track sections for pass by noise measurements
				EN 15610:2019	Railway applications - Acoustics - Rail and wheel roughness measurement related to noise generation
				EN 15892:2011	Railway applications - Noise Emission - Measurement of noise inside driver's cabs

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 16286-2:2013	Railway applications - Gangway systems between vehicles - Part 2: Acoustic measurements
				EN 16235:2013	Railway application - Testing for the acceptance of running characteristics of railway vehicles - Freight wagons - Conditions for dispensation of freight wagons with defined characteristics from on-track tests according to EN 14363
				EN 16272-1:2012	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Test method for determining the acoustic performance - Part 1: Intrinsic characteristics - Sound absorption in the laboratory under diffuse sound field conditions
				EN 16272-2:2012	Railway applications - Track - Noise barriers and related devices acting on airborne sound

1. 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					<p>propagation - Test method for determining the acoustic performance - Part 2: Intrinsic characteristics - Airborne sound insulation in the laboratory under diffuse sound field conditions</p>
				EN 16272-3-1:2012	<p>Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Test method for determining the acoustic performance - Part 3-1: Normalized railway noise spectrum and single number ratings for diffuse field applications</p>
				EN 16272-4:2016	<p>Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Test method for determining the acoustic performance - Part 4: Intrinsic characteristics - In situ values of</p>

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					sound diffraction under direct sound field
				EN 16272-6:2014	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Test method for determining the acoustic performance - Part 6: Intrinsic characteristics - In situ values of airborne sound insulation under direct sound field conditions
				EN 16727-1:2018	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Non-acoustic performance - Part 1: Mechanical performance under static loadings - Calculation and test method
				EN 16727-2-1:2018	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Non-acoustic performance - Part 2-1:

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Mechanical performance under dynamic loadings due to passing trains - Resistance to fatigue
				EN 16727-2-2:2016	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Non-acoustic performance - Part 2-2: Mechanical performance under dynamic loadings caused by passing trains - Calculation method
				EN 16951-1:2018	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Procedures for assessing long term performance - Part 1: Acoustic characteristics

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 16951-2:2018	Railway applications - Track - Noise barriers and related devices acting on airborne sound propagation - Procedures for assessing long term performance - Part 2: Non-acoustic characteristics
照明 Lighting	EN 13272-1:2019	Railway applications - Electrical lighting for rolling stock in public transport systems - Part 1: Heavy rail	車內照明 Interior lighting	IEC 62718:2013/COR1:2016 6 (EN 62718:2016)	Railway applications - Rolling stock - DC supplied electronic ballasts for lighting fluorescent lamps
	EN 13272-2:2019	Railway applications - Electrical lighting for rolling stock in public transport systems - Part 2: Urban rail	車外照明 Exterior lighting		
轉向架 Bogies	EN 13749:2011	Railway applications - Wheelsets and bogies - Method of specifying the structural requirements of bogie frames	懸吊零組件 Suspension components	EN 13298:2003	Railway applications - Suspension components - Helical suspension springs, steel

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 14363:2016 + A1:2018	Railway applications, Testing and Simulation for the acceptance of running characteristics of railway vehicles.		EN 13597:2003	Railway applications - Rubber suspension components - Rubber diaphragms for pneumatic suspension springs
	EN 15827:2011	Railway applications - Requirements for bogies and running gears		EN 13802:2013	Railway applications - Suspension components - Hydraulic dampers
	UIC 515-4:1993	Passenger rolling stock trailer bogies - running gear bogie frame structure strength tests.		EN 13913:2003	Railway applications - Rubber suspension components - Elastomer-based mechanical parts
	UIC 615-4:2003	Motive power units - Bogies and running gear - Bogie frame structure strength tests.		EN 14200:2004	Railway applications - Suspension components - Parabolic springs, steel
				EN 14817:2006	Railway applications - Suspension components - Air spring control elements
				EN 15049:2007	Railway applications - Suspension components - Torsion bar, steel
			車輪組/軸箱 Wheel sets/	EN 12080:2017	Railway applications - Axleboxes - Rolling bearings

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
			Axle boxes	EN 12081:2017	Railway applications - Axleboxes - Lubricating greases.
				EN 12082:2017	Railway applications - Axleboxes - Performance testing
				EN 13103-1:2017	Railway applications - Wheelsets and bogies - Part 1: Design method for axles with external journals
				EN 13260:2009 + A1:2010	Railway applications - Wheelsets and bogies - Wheelsets - Product requirements
				EN 13261:2009 + A1:2010	Railway applications - Wheelsets and bogies - Axles - Product requirements
				EN 13262:2004 + A2:2011	Railway applications - Wheelsets and bogies - Wheels - Product requirements
				EN 13715:2006 + A1:2010	Railway applications - Wheelsets and bogies - Wheels - Tread profile
				EN 13979-1:2003 + A2:2011	Railway applications - Wheelsets and bogies - Monobloc wheels - Technical approval procedure -

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Part 1: Forged and rolled wheels
				EN 14865-1:2009 + A1:2010	Railway applications - Axlebox lubricating greases - Part 1: Method to test the ability to lubricate
				EN 14865-2:2006 + A2:2010	Railway applications - Axlebox lubricating greases - Part 2: Method to test the mechanical stability to cover vehicle speeds up to 200 km/h
				EN 15313:2016	Railway applications - In-service wheelset operation requirements - In-service and off-vehicle wheelset maintenance
				EN 15427:2008 + A1:2010	Railway applications - Wheel/rail friction management - Flange lubrication
				EN 15437-1:2009	Railway applications - Axlebox condition monitoring - Interface and design requirements - Part 1: Track side equipment and rolling stock axlebox

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 15437-2:2012	Railway applications - Axlebox condition monitoring - Interface and design requirements - Part 2: Performance and design requirements of on-board systems for temperature monitoring
				EN 15654-1:2018	Railway applications - Measurement of vertical forces on wheels and wheelsets - Part 1: On-track measurement sites for vehicles in service
				EN 15654-2:2019	Railway applications - Measurement of vertical forces on wheels and wheelsets - Part 2: Test in workshop for new, modified and maintained vehicles
				EN 16028:2012	Railway applications - Wheel/rail friction management - Lubricants for trainborne and trackside applications
				EN 16910-1:2018	Railway applications - Rolling stock - Requirements for non-destructive testing on running

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					gear in railway maintenance - Part 1: Wheelsets
			其他 Others	EN 15302:2008 + A1:2010	Railway applications - Method for determining the equivalent conicity
				EN 15663:2017 + A1:2018	Railway applications - Vehicle reference masses
空調系統 Air conditioning system	EN 13129:2016	Railway applications - Air conditioning for main line rolling stock - Comfort parameters and type tests	車輛空調 Vehicle air conditioning		
		Railway applications - Air conditioning for urban and suburban rolling stock - Part 1: Comfort parameters			
		Railway applications - Air conditioning for urban and suburban rolling stock - Part 2: Type tests			
	EN 14750-1:2006				
	EN 14750-2:2006				

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 14813-1:2006 + A1:2010	Railway applications - Air conditioning for driving cabs - Part 1: Comfort parameters	駕駛室空調 Driving cabs air conditioning		
	EN 14813-2:2006 + A1:2010	Railway applications - Air conditioning for driving cabs - Part 2: Type tests			
煞車系統 Brake system	ISO 20138-1:2018	Railway applications — Calculation of braking performance (stopping, slowing and stationary braking) — Part 1: General algorithms utilizing mean value calculation	煞車類型 Brake type	CNS 15972 (UIC 541-3:2017)	鐵路車輛碟式煞車及其應用
	ISO 20138-2:2019	Railway applications — Calculation of braking performance (stopping, slowing and stationary braking) — Part 2: General algorithms utilizing step by step calculation			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 13452-1:2003	Railway applications - Braking - Mass transit brake systems - Part 1: Performance requirements		EN 14535-2:2019	Railway applications - Brake discs for railway rolling stock - Part 2: Brake discs mounted onto the wheel, dimensions and quality requirements
	EN 13452-2:2003	Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test		EN 14535-3:2015	Railway applications - Brake discs for railway rolling stock - Part 3: Brake discs, performance of the disc and the friction couple, classification
	EN 14198:2016 + A1:2018	Railway applications - Braking - Requirements for the brake system of trains hauled by locomotives		EN 16207:2014	Railway applications - Braking - Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock
	EN 14478:2017	Railway applications - Braking - Generic vocabulary		UIC 540:2016	Brakes - Air Brakes for freight trains and passenger trains
	EN 14531-1:2015 + A1:2018	Railway applications - Methods for calculation of stopping and slowing distances and immobilization braking -		UIC 541-06:2018	Brakes - Specifications for the construction of various brake components - Magnetic brakes

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Part 1: General algorithms utilizing mean value calculation for train sets or single vehicles			
	EN 14531-2:2015	Railway applications - Methods for calculation of stopping and slowing distances and immobilization braking - Part 2: Step by step calculations for train sets or single vehicles		UIC 541-5:2005	Brakes - Electropneumatic brake (ep brake) - Electropneumatic emergency brake override (EBO)
	EN 15179:2007	Railway applications - Braking - Requirements for the brake system of coaches		UIC 541-6:2010	Brakes - Electropneumatic brake (ep brake) and Passenger alarm signal (PAS)
	EN 15734-1:2010 / AC:2013	Railway applications - Braking systems of high speed trains - Part 1: Requirements and definitions		UIC 546:2014	Brakes - High power brakes for passenger trains
	EN 15734-2:2010 / AC:2012	Railway applications - Braking systems of high speed trains - Part 2: Test		UIC 547:1989	Brakes - Air brake - Standard programme of tests

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		methods			
	EN 16185-1:2014+A1:2020	Railway applications - Braking systems of multiple unit trains - Part 1: Requirements and definitions		CNS 8489	鐵路車輛用合成閘瓦
	EN 16185-2:2014 +A1:2019	Railway applications - Braking systems of multiple unit trains - Part 2: Test methods		EN 14601:2005 + A1:2010	Railway applications - Straight and angled end cocks for brake pipe and main reservoir pipe
	EN 16834:2019	Railway applications - Braking - Brake performance	煞車零組件	EN 15220:2016	Railway applications - Brake indicators
	EN 17065:2018	Railway applications - Braking - Passenger coach test procedure	Brake components	EN 15329:2019	Railway applications - Braking - Brake block holder and brake block key
	UIC 543:2018	Brakes - Regulations governing the equipment of trailing stock		EN 15355:2019	Railway applications - Braking - Distributor valves and distributor-isolating devices
	UIC 544-1:2014	Brakes - Braking performance		EN 15611:2008 + A1:2010	Railway applications - Braking - Relay valves
				EN 15612:2008 + A1:2010	Railway applications - Braking - Brake pipe accelerator valve

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 15625:2008 + A1:2010	Railway applications - Braking - Automatic variable load sensing devices
				EN 16451:2015	Railway applications - Braking - Brake pad holder
				EN 16452:2015 + A1:2019	Railway applications - Braking - Brake blocks
				UIC 541-00:2019	Brakes- Issuing of the UIC seal of approval/UIC label for vehicle components
				UIC 541-01:2017	Brakes - Brake cylinder
				UIC 541-03:2015	Brakes - Regulations concerning manufacture of the different brake parts - Driver's brake valve
				UIC 541-07:1992	Brakes - Regulations governing the construction of different types of braking gear - Simple pressure receptacles of steel, not fired, for air braking
				UIC 541-08:2007	Brakes - Regulations concerning the manufacture of the different brake parts - Derailment detectors for wagons

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				UIC 541-1:2016	Brakes - Regulations concerning the design of brake components
				UIC 542:2015	Brake parts - Interchangeability
				UIC 544-3:2018	Brakes - ETCS emergency brake valves
				UIC 548:2016	Brakes – Requirements of friction test benches for the international certification of brake pads and brake blocks
				EN 15595:2018	Railway applications - Braking - Wheel slide protection
				EN 15624:2008 + A1:2010	Railway applications - Braking - Empty-loaded changeover devices
			煞車力傳送 Brake force transmission	UIC 541-04:2014	Brakes - Regulations concerning the manufacture of brake components - Self-adjusting load-proportional braking system and automatic "empty-loaded" control device
				UIC 541-05:2016	Brakes - Specifications for the construction of various brake parts - Wheel Slide

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Protection device (WSP)
				UIC 541-2:1981	Dimensions of hose connections (brake hoses) and electric cables; types of pneumatic and electric connections and their positioning on wagons and coaches equipped with automatic couplers of the UIC and OSJD Member Railways
				UIC 544-2:1983	Conditions to be observed by the dynamic brake of locomotives and motor coaches so that the extra braking effort produced can be taken into account for the calculation of the braked-weight
			其他 Others	UIC 543-1:2010	Brakes - A study of minimum standards for maintenance of goods wagon brakes
				UIC 545:2014	Brakes - Inscriptions, marks and signs

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
列車控制與 管理系統 (TCMS) Train control and management systems	CNS 16134 (IEC 60571/ EN 50155:2017)	鐵路應用—鐵路車輛—電 子設備			
	IEC 62236-3-2:2018 (EN 50121-3-2:2016)	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus			
	IEC 62236-4:2018 (EN 50121- 4:2016+A1:2019)	Railway applications. Electromagnetic compatibility. Emission and immunity of the signalling and telecommunications apparatus			
	IEC 62236-5:2018 (EN 50121- 5:2017+A1:2019)	Emission and immunity of fixed power supply installations and apparatus.			

1. 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 50238-2:2020	Railway applications. Compatibility between rolling stock and train detection systems. Compatibility with track circuits			
	EN 50238-3:2019	Railway applications. Compatibility between rolling stock and train detection systems Compatibility with axle counters			
	IEC 61375-2-3:2015	Electronic railway equipment - Train communication network (TCN) - Part 2-3: TCN communication profile			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	IEC 61375-2-4:2017	Electronic railway equipment - Train communication network (TCN) - Part 2-4: TCN application profile			
		Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication			
	IEC 61377:2016 (EN 61377)	Railway applications - Rolling stock - Combined test method for traction Systems			
牽引系統 Traction system	EN 50125-1:2014	Railway applications - Environmental conditions for equipment - Part 1: Rolling stock and on-board equipment	牽引供電 Traction power supply	IEC 60850:2014 (EN 50163:2004+A2:2020)	Railway applications - Supply voltages of traction systems
	EN 50152-3-1:2017	Railway applications - Fixed installations - Particular requirements for a.c.		EN 62924:2017	Railway applications - Fixed installations - Stationary energy storage system for DC traction

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		switchgear - Part 3-1: Measurement, control and protection devices for specific use in a.c. traction systems - Devices			systems
	EN 50562:2018	Railway applications - Fixed installations - Process, protective measures and demonstration of safety for electric traction systems		IEC/EN 60349-2:2010	Electric traction - Rotating electrical machines for rail and road vehicles - Part 2: Electronic converter-fed alternating current motors
				CNS 15588-1 (IEC 60349-1:2010)	電力牽引-軌道及道路車輛用之旋轉電機-第1部:旋轉電機(不含電子換流器供電之交流電動機)
			牽引電動機 Traction motor	CNS 15588-2 (IEC 60349-2:2010)	電力牽引-軌道及道路車輛用之旋轉電機 第2部:電子換流器供電型交流電動機
				CNS 15588-3 (IEC 60349-3:2010)	電力牽引-軌道及道路車輛用之旋轉電機 第3部:由組件損失總和判定換流器供電交流電動機之總損失
				CNS 15588-4 (IEC 60349-4:2012)	電力牽引-軌道及道路車輛用之旋轉電機-第4部:電子換流

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					器供電之永磁同步電機
				IEC 62520:2011 (EN 62520)	Railway applications - Electric traction - Short-primary type linear induction motors (LIM) fed by power converters
			換流器/截波器 Inverter/Chopper		
輔助電力 Auxiliary power	IEC 62485-1 :2018	Safety requirements for secondary batteries and battery installations- General safety information	車載供電 On-board power supply	CNS 16134 (IEC 60571/EN 50155)	鐵路應用－鐵路車輛－電子設備
	IEC 62485-2 :2018	Safety requirements for secondary batteries and battery installations- Stationary batteries		CNS 60494 (IEC 60494-1 :2013/ EN 50206-1:2010 & IEC 60494-2:2013 / EN 50206-2:2010)	鐵路車輛－集電弓－特性和試驗－正線、捷運及輕軌車輛之集電弓
	IEC 61439-1 :2020 (EN 61439-1)	Low voltage switchgear and control gear assemblies- General rules		IEC 60077-1:2017 (EN 60077-1)	Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 50274 :2002	Low voltage switchgear and control gear assemblies- Protection against electric shock- Protection against unintentional direct contact with hazardous live parts.			general rules
	EN 50343:2014+A1:2017	Railway applications-Rolling stock-Rules for installation of cabling		IEC 60077-2:2017 (EN 60077-2)	Railway applications - Electric equipment for rolling stock - Part 2: Electrotechnical components - General rules
	EN 50547:2013	Railway applications - Batteries for auxiliary power supply systems		IEC 60077-4:2019 (EN 60077-4)	Railway applications - Electric equipment for rolling stock - Part 4: Electrotechnical components - Rules for AC circuit-breakers
				IEC 60077-5:2019 (EN 60077-5)	Railway applications - Electric equipment for rolling stock - Part 5: Electrotechnical components - Rules for HV fuses

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IEC 62313:2009	Railway applications - Power supply and rolling stock - Technical criteria for the coordination between power supply (substation) and rolling stock
				IEC 62486:2017 (EN 50367:2012+A1:2016)	Railway applications - Current collection systems - Technical criteria for the interaction between pantograph and overhead contactline (to achieve free access)
				IEC 62498-1:2010	Railway applications - Environmental conditions for equipment - Part 1: Equipment on board rolling stock
				IEC 62499:2008 (EN 50405:2015)	Railway Applications - Current Collection Systems - Pantographs, Testing Methods For carbon contact Strips
				IEC 62846:2016 (EN 50317:2012)	Railway applications. Current collection systems. Requirements for and validation of

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					measurements of the dynamic interaction between pantograph and overhead contact line
				EN 50318:2018	Railway applications - Current collection systems - Validation of simulation of the dynamic interaction between pantograph and overhead contact line
				CNS 16134	鐵路應用—鐵路車輛—電子設備
			車載儲能 On-board power storage	CNS 61373 (IEC 61373:2010 / EN 61373:2010)	Railway applications. Rolling stock equipment. Shock and vibration tests
				IEC 60068-2-14:2009 (EN 60068-2-14)	Environmental testing -Part 2-14: Tests - Test N: Change of temperature
				IEC 60068-2-27:2008 (EN 60068-2-27)	Basic environmental testing procedures – Part 2: Tests – Test Ea and guidance: Shock

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IEC 60068-2-78:2012 (EN 60068-2-78)	Environmental testing -Part 2-78: Tests - Test Cab: Damp heat, steady state
				IEC 60623:2017	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Vented nickel-cadmium prismatic rechargeable single cells
				IEC 61881-1:2010 (EN 61881-1:2011)	Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 1: Paper/plastic film capacitors
				IEC 61881-2:2012 (EN 61881-2:2012)	Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 2: Aluminium electrolytic capacitors with non solid electrolyte
				IEC 61881-3:2012 (EN 61881-3:2012)	Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 3: Electric double-layer capacitors

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IEC 62391-1:2015 (EN 62391-1)	Fixed electric double-layer capacitors for use in electric and electronic equipment - Part 1: Generic specification
				IEC 62391-2:2006 (EN 62391-2)	Fixed electric double-layer capacitors for use in electronic equipment - Part 2: Sectional specification - Electric double-layer capacitors for power application
				IEC 62576 :2018	Electric double-layer capacitors for use in hybrid electric vehicles. Test methods for electrical characteristics
				IEC 62619:2017	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IEC 62620:2014	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary lithium cells and batteries for use in industrial applications
				IEC 62928:2017 (EN IEC 62928)	Railway applications - Rolling stock - Onboard lithium-ion traction batteries
				EN 62864-1:2016	Railway applications - Rolling stock - Power supply with onboard energy storage system - Part 1: Series hybrid system
			電阻器 Resistor	EN 60322:2001	Railway applications - Electric equipment for rolling stock - Rules for power resistors of open construction.
			斷路器 Breaker	IEC 60077-3:2019 (EN 60077-3)	Railway applications - Electric equipment for rolling stock - Part 3: Electrotechnical components - Rules for d.c. circuit-breakers

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IEC 60077-4:2019 (EN 60077-4)	Railway applications - Electric equipment for rolling stock - Part 4: Electrotechnical components - Rules for AC circuit-breakers
				IEC 60077-5:2019 (EN 60077-5)	Railway applications - Electrotechnical equipment for rolling stock - Part 5: Electrotechnical components - Rules for HV fuses
			連接器 Connector	EN 50467:2011	Railway applications - Rolling stock - Electrical connectors, requirements and test methods
			轉換器 Converter	IEC 61287-1:2014 (EN 61287-1)	Railway applications - Power converters installed on board rolling stock - Part 1: Characteristics and test methods
				EN 50327:2003	Railway applications - Fixed installations - Harmonisation of the rated values for converter groups and tests on converter groups

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
			變壓器 Transformer	IEC 60310:2016 (EN 60310)	Railway applications - Traction transformers and inductors on board rolling Stock
			電氣安全防護 Electrical safety protection	EN 50526-1:2012	Railway applications - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 1: Surge arresters
				EN 50526-2:2014	Railway applications - Fixed installations - D.C. surge arresters and voltage limiting devices - Part 2: Voltage limiting devices
				EN 50153:2014	Railway applications - Rolling stock - Protective provisions relating to electrical hazards
車門系統 Door system			車側出入口系統 Bodyside entrance system	CNS 15160-3	聲學－建築物及建築構件之隔音量測－建築構件空氣音隔音之實驗室量測
				CNS 15813-1	門窗熱性能－熱傳透性熱箱測定法－第 1 部：完整門窗

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				CNS 16108-2 (EN 45545-2:2020)	鐵路應用—鐵路車輛防火—第 2 部:材料及零組件火災時之行為要求
				CNS 16134 (IEC 60571/ EN 50155:2017)	鐵路應用—鐵路車輛—電子設備
				CNS 16150 (EN 14752:2015 + A1:2019)	鐵路應用—鐵路車輛車體側入口系統
				CNS 61373 (IEC 61373:2010 / EN 61373:2010)	鐵路應用—鐵路車輛設備—衝擊及振動試驗
				ISO 5658-2:2006	Reaction to fire tests-spread of flame-Part 2: Lateral spread on building products in vertical configuration
				ISO 10140-2:2010	Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				ISO 12567-1:2010+Cor 1:2010	Thermal performance of windows and doors — Determination of thermal transmittance by the hot-box method — Part 1: Complete windows and doors
				IEC 60077-1:2017 (EN 60077-1)	Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules
				IEC 62278:2002	Railway applications - Specification and demonstration of reliability, availability, maintainability and safety (RAMS)
				IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems
				EN 14067 series	Railway applications - Aerodynamics -All parts

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Railway applications - Environmental conditions for equipment - Part 1: Rolling stock and on-board equipment
				EN 50125-1:2014	
				EN 50153:2014	Railway applications - Rolling stock - Protective provisions relating to electrical hazards
聯結器 Coupler		Railway applications - Rescue coupler - Performance requirements, specific interface geometry and test methods	聯結器 Coupler		
	EN 15020:2006 + A1:2010				
	EN 15566:2016	Railway applications - Railway rolling stock - Draw gear and screw coupling			
	EN 15807:2011	Railway applications - Pneumatic half couplings			
	EN 16019:2014	Railway applications - Automatic coupler - Performance requirements,			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		specific interface geometry and test method			
鐵路車輛 防火 Fire protection on railway vehicles	CNS 16108-1 (EN 45545-1:2013)	鐵路應用－鐵路車輛防火－第 1 部:通則	火災警報 Fire warning		
			防火測試 Fire testing	EN 16989:2018	Railway applications - Fire protection on railway vehicles - Fire behaviour test for a complete seat
				EN 17084:2018	Railway applications - Fire protection on railway vehicles - Toxicity test of materials and components
	CNS 16108-2 (EN 45545-2:2020)	鐵路應用－鐵路車輛防火－第 2 部:材料及零組件火災時之行為要求			
	EN 45545-3:2013	Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 45545-4:2015	Railway applications - Fire protection on railway vehicles - Part 4: Fire safety requirements for rolling stock design			
	EN 45545-5:2016	Railway applications - Fire protection on railway vehicles - Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles			
	EN 45545-6:2015	Railway applications - Fire protection on railway vehicles - Part 6: Fire control and management systems			
	EN 45545-7:2013	Railway applications - Fire protection on railway vehicles - Part 7: Fire safety requirements for flammable liquid and flammable gas			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		installations			
其他/設計/性能 Others/ Design/ Performance	CNS 15768 (IEC 61133:2016 /EN 50215:2009)	軌道車輛組裝完成及運轉 前之整車測試	電磁相容 Electromagnetic compatibility	IEC 62236-2:2018 (EN 50121-2: 2017) IEC 62236-3-1:2018 (EN 50121-3-1:2017/A1:2019) IEC 62236-3-2:2018 (EN 50121-3-2:2016)	Railway applications - Electromagnetic compatibility - Part 2: Emission of the whole railway system to the outside world Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 12561-1:2011	Railway applications - Tank wagons - Part 1: Identification plates for tank wagons for the carriage of dangerous goods
	EN 12299:2009	Railway applications - Ride comfort for passengers - Measurement and evaluation		EN 12561-2:2011	Railway applications - Tank wagons - Part 2: Bottom emptying devices for liquid products including vapour return
	EN 15380-4:2013	Railway applications - Classification system for railway vehicles - Part 4: Function groups	油罐車 Tank wagons	EN 12561-3:2011 / AC:2014	Railway applications - Tank wagons - Part 3: Bottom filling and emptying devices for gases liquefied under pressure
	EN 15380-5:2014	Railway applications - Classification system for railway vehicles - Part 5: System Breakdown Structure (SBS)		EN 12561-4:2011	Railway applications - Tank wagons - Part 4: Devices for top filling and emptying of liquid products
	EN 15528:2015	Railway applications - Line categories for managing the interface between load limits of vehicles and infrastructure		EN 12561-5:2011	Railway applications - Tank wagons - Part 5: Devices for vapour return while filling or emptying of liquid products
	EN 15723:2010	Railway applications -		EN 12561-6:2011	Railway applications - Tank

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Closing and locking devices for payload protecting devices against environmental influences - Requirements for durability, operation, indication, maintenance, recycling			wagons - Part 6: Manholes
	EN 16362:2013	Railway applications - Ground based services - Water restocking equipment		EN 12561-7:2011	Railway applications - Tank wagons - Part 7: Platforms and ladders
	EN 16404:2016	Railway applications - Re-railing and recovery requirements for railway vehicles		EN 12561-8:2011	Railway applications - Tank wagons - Part 8: Heating connections
	EN 50463-1:2017	Railway applications - Energy measurement on board trains - Part 1: General	貨車	EN 12663-2:2010	Railway applications - Structural requirements of railway vehicle bodies - Part 2: Freight wagons
	EN 50463-2:2017	Railway applications - Energy measurement on board trains - Part 2: Energy measuring	Freight wagons	EN 15839:2012 + A1:2015	Railway applications - Testing for the acceptance of running characteristics of railway vehicles - Freight wagons - Testing of running safety under longitudinal

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					compressive forces
	EN 50463-3:2017	Railway applications - Energy measurement on board trains - Part 3: Data handling		EN 15877-1:2012 + A1:2018	Railway applications - Marking on railway vehicles - Part 1: Freight wagons
	EN 50463-4:2017	Railway applications - Energy measurement on board trains - Part 4: Communication		EN 16860:2019	Railway applications - Requirements and general principles for securing payload in rail freight transport
	EN 50463-5:2017	Railway applications - Energy measurement on board trains - Part 5: Conformity assessment		EN 12663-2:2010	Railway applications - Structural requirements of railway vehicle bodies - Part 2: Freight wagons
	EN 50591:2019	Railway Applications - Rolling Stock - Specification and verification of energy consumption		EN 13775-1:2003	Railway applications - Measuring of new and modified freight wagons - Part 1: Measuring principles
	EN 50657:2017	Railways Applications. Rolling stock applications. Software on Board Rolling Stock		EN 13775-2:2003	Railway applications - Measuring of new and modified freight wagons - Part 2: Freight wagons with bogies

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 13775-3:2003	Railway applications - Measuring of new and modified freight wagons - Part 3: Freight wagons with 2 wheelsets
				EN 13775-4:2004	Railway applications - Measuring of new and modified freight wagons - Part 4: Bogies with 2 wheelsets
				EN 13775-5:2004	Railway applications - Measuring of new and modified freight wagons - Part 5: Bogies with 3 wheelsets
				EN 13775-6:2004	Railway applications - Measuring of new and modified freight wagons - Part 6: Multiple and articulated freight wagons
			其他 Others	CNS 14678 (UIC 564-1 OR)	客車廂之玻璃窗

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				CNS 14829 (UIC 822)	軌道車輛用壓縮螺旋簧
				EN 15152:2019	Railway applications - Windscreens for trains
				EN 15153-1:2013 + A1:2016	Railway applications - External visible and audible warning devices for trains - Part 1: Head, marker and tail lamps
				EN 15663:2017 + A1:2018	Railway applications - Vehicle reference masses
				EN 15877-2:2013	Railway applications - Markings of railway vehicles - Part 2: External markings on coaches, motive power units, locomotives and on track machines

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 16241:2014 + A1:2016	Railway applications - Slack adjuster
				EN 16507	Railway applications - Ground based service - Diesel refuelling equipment
				EN 16922	Railway applications - Ground based services - Vehicle waste water discharge equipment
				EN 17023:2018	Railway applications - Railway vehicle maintenance - Creation and modification of maintenance plan
				EN 17018:2019	Railway applications - Rolling stock maintenance - Terms and definitions
				EN 17095:2019	Railway applications - Rolling stock maintenance - Maintenance records
				EN 50500:2008 + A1:2015	Measurement procedures of magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 62110:2009	Electric and magnetic field levels generated by AC power systems - Measurement procedures with regard to public exposure

■ 供電系統

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
架空線 Overhead contact line.				IEC 60913:2013	Railway applications - Fixed installations - Electric traction overhead contact lines
				IEC 62128-1:2013	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock
				IEC 62621:2011	Railway applications - Fixed installations - Electric traction - Specific requirements for composite insulators used for overhead contact line systems
				IEC 63076:2019 (EN 50502:2015)	Railway applications - Rolling stock - Electric equipment in trolley buses - Safety requirements and current collection systems
			設備/元件 Facilities and components	EN 50119:2009	Railway applications - Fixed installations - Electric traction overhead contact lines
				EN 50149:2012	Railway applications - Fixed installations - Electric traction - Copper and copper alloy grooved contact wires
				EN 50317:2012	Railway applications - Current collection systems - Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line
				EN 50318:2018	Railway applications - Current collection systems - Validation of simulation of the dynamic interaction between pantograph and overhead contact line
				EN 50345:2009	Railway applications - Fixed installations - Electric traction - Insulating synthetic rope assemblies for support of overhead

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					標準標題 contact lines
				EN 50367:2012	Railway applications - Current collection systems - Technical criteria for the interaction between pantograph and overhead line (to achieve free access)
				EN 50405:2015+ A1:2016	Railway applications - Current collection systems - Pantographs, testing methods for contact strips
				EN 50533:2011	Railway applications - Three-phase train line voltage characteristics
				IEC 62271:2020 Series	High-voltage switchgear and controlgear - ALL PARTS
				EN 50123-1:2003	Railway applications - Fixed installations - D.C. switchgear - Part 1: General
				EN 50123-2:2003	Railway applications - Fixed installations - D.C. switchgear - Part 2: D.C. circuit breakers
				EN 50123-3:2003	Railway applications - Fixed installations - D.C. switchgear - Part 3: Indoor d.c. disconnectors, switch-disconnectors and earthing switches
				EN 50123-4:2003	Railway applications - Fixed installations - D.C. switchgear - Part 4: Outdoor d.c. disconnectors, switch-disconnectors and earthing switches
變電站 Substation			開關設備 Switchgear		

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					標準標題
				EN 50123-6:2003	Railway applications - Fixed installations - D.C. switchgear - Part 6: D.C. switchgear assemblies
				EN 50123-7-1:2003	Railway applications - Fixed installations - D.C. switchgear - Part 7-1: Measurement, control and protection devices for specific use in d.c. traction systems - Application guide
				EN 50123-7-2:2003	Railway applications - Fixed installations - D.C. switchgear - Part 7-2: Measurement, control and protection devices for specific use in d.c. traction systems - Isolating current transducers and other current measuring devices
				EN 50123-7-3:2003	Railway applications - Fixed installations - D.C. switchgear - Part 7-3: Measurement, control and protection devices for specific use in d.c. traction systems - Isolating voltage transducers and other voltage measuring devices
				EN 50152-1:2012	Railway applications - Fixed installations - Particular requirements for alternating current switchgear - Part 1: Circuit-breakers with nominal voltage above 1 kV
				EN 50152-2:2012	Railway applications - Fixed installations - Particular requirements for alternating current switchgear - Part 2: Disconnectors, earthing switches and switches with nominal voltage above 1 kV
			變壓器 Transformer	IEC 62695:2014	Railway applications - Fixed installations - Traction transformers

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 50152-3-2:2016	Railway applications - Fixed installations - Particular requirements for a.c. switchgear - Part 3-2: Measurement, control and protection devices for specific use in a.c. traction systems - Current transformers
				EN 50152-3-3:2016	Railway applications - Fixed installations - Particular requirements for a.c. switchgear - Part 3-3: Measurement, control and protection devices for specific use in a.c. traction systems - Voltage transformers
				EN 50329:2003	Railway applications - Fixed installations - Traction transformers
				IEEE C57.12 Series	Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers
				IEEE C57.13-2016	Requirements for Instrument Transformers
				IEC 60076 Series	Power transformers - All parts
				IEC 60310:2016	Railway applications - Traction transformers and inductors on board rolling stock
			變比器 (PT/CT) Instrument transformer (PT/CT)	IEC 61869-2:2012	Instrument transformers - Part 2: Additional requirements for current transformers
				IEC 61869-3:2011	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers
				IEC 61869-5:2011	Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers
			整流器 Converter	IEC 60146-1-1:2009	Semiconductor converters - General requirements and line commutated converters - Part 1-1: Specification of basic

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					requirements
				IEC 60146-1-2:2019	Semiconductor converters - General requirements and line commutated converters - Part 1-2: Application guidelines
				IEC 60146-2:1999	Semiconductor converters - Part 2: Self-commutated semiconductor converters including direct d.c. converters
				IEC 62590:2019	Railway applications - Fixed installations - Electronic power converters for substations
				IEC 62128-2:2013	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 2: Provisions against the effects of stray currents caused by d.c. traction systems
			雜散電流 Stray current	EN 50122-2:2010	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 2: Provisions against the effects of stray currents caused by d.c. traction systems
電力品質 Power quality				EN 50162:2004	Protection against corrosion by stray current from direct current systems
				IEC 60099-4:2014	Surge arresters - Part 4: Metal-oxide surge arresters without gaps for a.c. systems
			突波 Surge	IEC 60099-5:2018	Surge arresters - Part 5: Selection and application recommendations
				IEC 60099-6:2019	Surge arresters - Part 6: Surge arresters containing both series and parallel gapped structures - System voltage of 52 kV and less
			諧波 Harmonics	IEEE 519:2014	Recommended Practice and Requirements for Harmonic Control in Electric Power Systems

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
絕緣防護 Insulation and protection			絕緣 Insulation	IEC 62497-1:2010+AMD1:2013	Railway applications – Insulation coordination – Part 1: Basic requirements – Clearances and creepage distances for all electrical and electronic equipment
				CNS 14165	電器外殼保護分類等級(IP 碼)
				IEC 60204-1:2016	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
第三軌 Third rail			第三軌 Third rail	IEC 62497-2:2010	Railway applications. Insulation coordination. Part 2: Overvoltages and related protection
				IEC 60228:2004	Conductors of insulated cables
				IEC 60332 Series	Tests on electric and optical fibre cables under fire conditions - ALL PARTS
電纜 Cable			電纜 Cable	IEC 60502:2020 Series	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1.2 kV) up to 30 kV (Um = 36 kV) - ALL PARTS
				IEC 60840:2011	Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um = 36 kV) up to 150 kV (Um = 170 kV) - Test methods and requirements
				IEC 60853-1:1985	Calculation of the cyclic and emergency current rating of cables. Part 1: Cyclic rating factor for cables up to and including 18/30(36) kV
				IEC 60853-2:1989	Calculation of the cyclic and emergency current rating of cables.

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Part 2: Cyclic rating of cables greater than 18/30 (36) kV and emergency ratings for cables of all voltages
				IEC 60853-3:2002	Calculation of the cyclic and emergency current rating of cables - Part 3: Cyclic rating factor for cables of all voltages, with partial drying of the soil
				EN 50264-1:2008	Railway rolling stock power and control cables having special fire performance
				EN 50264-2-1:2008	Railway applications - Railway rolling stock power and control cables having special fire performance - Part 2-1: Cables with crosslinked elastomeric insulation - Single core cables
				EN 50264-2-2:2008	Railway applications - Railway rolling stock power and control cables having special fire performance - Part 2-2: Cables with crosslinked elastomeric insulation - Multicore cables
				EN 50264-3-1:2008	Railway applications - Railway rolling stock power and control cables having special fire performance - Part 3-1: Cables with crosslinked elastomeric insulation with reduced dimensions - Single core cables
				EN 50264-3-2:2008	Railway applications. Railway rolling stock power and control cables having special fire performance. Cables with crosslinked elastomeric insulation with reduced dimensions. Multicore cables
				EN 50305:2002	Railway applications - Railway rolling stock cables having special fire performance - Test methods
				EN 50306-1:2020	Railway applications - Railway rolling stock cables having special

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					fire performance - Thin wall - Part 1: General requirements
	EN 50306-2:2002				Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 2: Single core cables
	EN 50306-3:2002				Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 3: Single core and multicore cables (pairs, triples and quads) screened and thin wall sheathed
	EN 50306-4:2002				Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 4: Multicore and multipair cables standard wall sheathed
	EN 50355:2013				Railway applications - Railway rolling stock cables having special fire performance - Guide to use
	EN 50382-1:2008+A1:2013				Railway applications. Railway rolling stock high temperature power cables having special fire performance. General requirements
	EN 50382-2:2008+A1:2013				Railway applications. Railway rolling stock high temperature power cables having special fire performance. Single core silicone rubber insulated cables for 120 °C or 150 °C
	EN 50125-2:2002				Railway applications - Environmental conditions for equipment - Part 2: Fixed electrical installations
	EN 50181 : 2010				Plug-in type bushings above 1 kV up to 52 kV and from 250 A to 2,50 kA for equipment other than liquid filled transformers
其他 Others			其他 Others		

■ 號誌與通訊系統

號誌 Signalling system					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
自動列車控制系統 Automatic train control system	IEC 62236-3-1:2018 (EN 50121-3-1:2017)	Railway applications - Electromagnetic compatibility - Part 3-1: Rolling stock - Train and complete vehicle	車載號誌設備 Carborne signalling equipment	CNS 16134 (IEC 60571/EN 50155)	鐵路應用－鐵路車輛－電子設備
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		CNS 62498-3 (IEC 62498-3)	鐵路應用－設備之環境條件－第 3 部：號誌及電訊設備
Automatic train control system	IEC 62290-1:2014 (EN 62290-1)	Railway applications - Urban guided transport management and command/control systems - Part 1: System principles and fundamental concepts		IEC 62236-3-2:2018 (EN 50121-3-2:2016)	Railway applications - Electromagnetic compatibility - Part 3-2: Rolling stock - Apparatus
	IEC 62290-2:2014 (EN 62290-2)	Railway applications - Urban guided transport management and command/control systems - Part 2: Functional requirements specification		IEC 61375-2-4	Electronic railway equipment - Train communication network (TCN) - Part 2-4: TCN application profile

標誌 Signalling system					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		IEC 62236-4 (EN 50121-4)	Railway applications. Electromagnetic compatibility. Emission and immunity of the signalling and telecommunications apparatus
	IEC 62236-1 (EN 50121-1:2017)	Railway applications - Electromagnetic compatibility - Part 1: General		IEC 62236-5 (EN 50121-5)	Emission and immunity of fixed power supply installations and apparatus.
	IEC 62236-2 (EN 50121-2:2017)	Railway applications - Electromagnetic compatibility - Part 2: Emission of the whole railway system to the outside world		IEC 62280:2014 (EN 50159)	Railway applications - Communication, signalling and processing systems - Safety-related communication in transmission systems
	EN 50668:2019	Railway applications - Signalling and control systems for non UGTMS Urban Rail systems		IEC 62497-1:2010/EN 50124-1:2017	Railway applications - Insulation coordination - Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment
	IEEE 1474.1-2004	IEEE Standard for Communications-Based Train Control (CBTC) Performance and Functional Requirements		IEC 62497-2:2010/EN 50124-2:2017	Railway applications - Insulation coordination - Part 2: Overvoltages and related protection

號誌 Signalling system						
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題	
	IEEE 1474.2-2003	IEEE Standard for User Interface Requirements in Communications-Based Train Control (CBTC) Systems		IEC 62580-1:2015	Electronic railway equipment - On-board multimedia and telematic subsystems for railways - Part 1: General architecture	
	IEEE 1474.3-2008	IEEE Recommended Practice for Communications-Based Train Control (CBTC) System Design and Functional Allocations		IEC 62625-2:2016	Electronic railway equipment - On board driving data recording system - Part 2: Conformity testing	
	IEEE 1474.4-2011	IEEE Recommended Practice for Functional Testing of a Communications-Based Train Control (CBTC) System		CNS 14546	發光二極體交通號誌燈燈面及燈箱	
				CNS:16134 (IEC 60571/EN 50155)	鐵路應用－鐵路車輛－電子設備	
			道旁設備 Wayside equipment	CNS 62498-3 (IEC 62498-3)	鐵路應用－設備之環境條件－第 3 部： 號誌及電訊設備	
				IEC 62912:2015	Railway applications - Direct current signalling monostable relays of type N and type C	

號誌 Signalling system.			
1 階項目	標準號碼	標準標題	2 階項目
	IEC 62427:2007/EN 50238-1:2019	Railway applications - Compatibility between rolling stock and train detection systems - Part 1: General	
	IEC 62236-4 (EN 50121-4:2016)	Railway applications - Electromagnetic compatibility - Part 4: Emission and immunity of the signalling and telecommunications apparatus	
	EN 50592:2016	Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters	列車偵測設備 Train detection device
	EN 50617-1:2015	Railway applications - Technical parameters of train detection systems for the interoperability of the trans-European railway system - Part 1: Track circuits	
	EN 50617-2:2015	Railway Applications - Technical parameters of train detection systems for the interoperability of the trans-European railway system - Part 2: Axle counters	
號誌聯鎖系統 Interlocking system	IEC 62279:2015 (EN 50128; 2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection	繼電器 Relay
	IEC 61810-3:2015	Electromechanical elementary relays - Part 3: Relays with forcibly guided (mechanically linked) contacts	

號誌 Signalling system					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		systems			
	IEC 62280:2014 (EN 50159)	Railway applications - Communication, signalling and processing systems - Safety-related communication in transmission systems		IEC 62912:2015	Railway applications - Direct current signalling monostable relays of type N and type C
	IEC 62290-2:2014	Railway applications - Urban guided transport management and command/control systems - Part 2: Functional requirements specification		IEC 62912-2:2019	Railway applications - Direct current signalling monostable relays - Part 2: Spring type relays
	IEC 62290-3:2019	Railway applications - Urban guided transport management and command/control systems - Part 3: System requirements specification		EN 50205:2002	Relays with forcibly guided (mechanically linked) contacts
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		EN 50578:2013	Railways applications - Direct current signalling relays

號誌 Signalling system					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 50592:2016	Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters
			電子聯鎖系統 Electronic interlocking system		
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		CNS 16133 (EN 13232-4)	鐵路應用—軌道—尖軌及岔心—第 4 部:致動、鎖定及檢查
道旁號誌設備 Sideway signalling equipment	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling	轉轍器 Switch	CNS 62498-3 (IEC 62498-3)	鐵路應用—設備之環境條件—第 3 部:號誌及電訊設備
				IEC 62236-4 (EN 50121-4)	Railway applications, Electromagnetic compatibility, Emission and immunity of the signalling and telecommunications apparatus
				IEC 62236-5	Emission and immunity of fixed power

號誌 Signalling system

I 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				(EN 50121-5)	supply installations and apparatus.
				EN 15689	Railway applications. Track. Switches and crossings. Crossing components made of cast austenitic manganese steel
				EN 50124-1	Railway applications - Insulation coordination - Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment
			號誌顯示裝置 Signalling display device		
				EN 50592:2016	Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters
			計軸器 Axle counter	EN 50617-2:2015	Railway Applications - Technical parameters of train detection systems for the interoperability of the trans-European railway system - Part 2: Axle counters.
			其他 Others	IEC 62236-5 (EN 50121-5:2017)	Railway applications - Electromagnetic compatibility - Part 5: Emission and immunity of fixed power supply installations and apparatus

號誌 Signalling system					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
車地通訊 Vehicle-to-ground communication	IEC 61375-2-6:2018	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication	車地通訊 Vehicle-to-ground communication		
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems			
車地通訊 Vehicle-to-ground communication	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling	車地通訊 Vehicle-to-ground communication		
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems			
行控中心/機房 CTC	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling	行控中心/機房 CTC		

號誌 Signalling system			
1 階項目	標準號碼	標準標題	2 階項目
	50129:2018)	related electronic systems for signalling	
			標準號碼
			標準標題

通訊 Communication System			
1 階項目	標準號碼	標準標題	2 階項目
列車、道旁通訊設備 Train、wayside communication network and equipment	IEC 61375-1-2012	Electronic railway equipment - Train communication network (TCN) - Part 1: General architecture	列車通訊網路 TCN, Train communication network
	IEC 61375-2-1:2012	Electronic railway equipment - Train communication network (TCN) - Part 2-1: Wire Train Bus (WTB)	
	IEC 61375-2-3:2015	Electronic railway equipment - Train communication network (TCN) - Part 2-3: TCN communication profile	無線電頻譜 Radio spectrum
	IEC 61375-2-4:2017	Electronic railway equipment - Train communication network (TCN) - Part 2-4: TCN application profile	
			標準號碼
			標準標題

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 1: Ground based vehicular radar
	IEC 61375-2-5: 2015	Electronic railway equipment - Train communication network (TCN) - Part 2-5: Ethernet train backbone		EN 301091-2	Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 2: Fixed infrastructure radar equipment
	IEC 61375-2-6: 2018	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication		EN 301091-3	Short Range Devices; Transport and Traffic Telematics (TTT); Radar equipment operating in the 76 GHz to 77 GHz range; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU; Part 3: Railway/Road Crossings obstacle detection system applications
	IEC 61375-3-1: 2012	Electronic railway equipment - Train communication network (TCN) - Part 3-1: Multifunction	電磁相容 EMC, Electromagnet-i	EN 301489-12	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC)

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Vehicle Bus (MVB)	c compatibility		standard for radio equipment and services; Part 12: Specific conditions for Very Small Aperture Terminal, Satellite Interactive Earth Stations operated in the frequency ranges between 4 GHz and 30 GHz in the Fixed Satellite Service (FSS) Harmonised Standard for electromagnetic compatibility
	IEC 61375-3-3: 2012	Electronic railway equipment - Train communication network (TCN) - Part 3-3: CANopen Consist Network (CCN)		EN 301489-51	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51: Specific conditions for Automotive, Ground based Vehicles and Surveillance Radar Devices using 24,05 GHz to 24,25 GHz, 24,05 GHz to 24,5 GHz, 76 GHz to 77 GHz and 77 GHz to 81 GHz; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU
	IEC 61375-3-4: 2014	Electronic railway equipment - Train communication network (TCN) - Part 3-4: Ethernet Consist		EN 303446-1	ElectroMagnetic Compatibility (EMC) standard for combined and/or integrated radio and non-radio equipment; Part 1:

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Network (ECN)			Requirements for equipment intended to be used in residential, commercial and light industry locations
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		EN 303446-2	Electromagnetic Compatibility (EMC) standard for combined and/or integrated radio and non-radio equipment; Part 2: Requirements for equipment intended to be used in industrial locations
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		EN 303204-1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Network Based Short Range Devices (SRD); Radio equipment to be used in the 870 MHz to 876 MHz frequency range with power levels ranging up to 500 mW; Part 1: Technical characteristics and test methods
	IEC 62425:2007 /EN 50129:2018	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		EN 300330-1	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency

通訊 Communication System						
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題	
					range 9 kHz to 30 MHz; Part 1: Technical characteristics and test methods	
	EN 16683:2015	Railway applications - Call for aid and communication device - Requirements	安全性 Safety	EN 302999	Safety; Remote Power Feeding Installations; Safety requirements for the erection and operation of information technology installations with remote power feeding	
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		IEC 60950-1:2005+AMD1:2009+AMD2:2013 CSV	Information technology equipment - Safety - Part 1: General requirements	
	EN 50239:2018	Railway applications - Radio remote control system of traction vehicle for shunting application	網路交換機 Network switch	IEC 61000-4 Series	Electromagnetic compatibility (EMC) - Part 4- all	
	EN 300607-1:2001	Digital cellular telecommunications system (Phase 2+) (GSM); Mobile Station (MS) conformance specification; Part 1: Conformance specification (GSM 11.10-1 version 8.1.1 Release		IEC 62368-1:2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements	

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		1999)			
	EN 300761-1:2001	ElectroMagnetic Compatibility and Radio Spectrum Matters (ERM); Short Range Devices (SRD); Automatic Vehicle Identification (AVI) for railways operating in the 2,45 GHz frequency range; Part 1: Technical characteristics and methods of measurement		EN 50561-1:2013	Power line communication apparatus used in low-voltage installations - Radio disturbance characteristics - Limits and methods of measurement - Part 1: Apparatus for in-home use
	EN 300761-2:2002	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Automatic Vehicle Identification (AVI) for railways operating in the 2,45 GHz frequency range; Part 2: Harmonized standard covering essential requirements under article 3.2 of the R&TTE Directive		EN 55032:2015	Electromagnetic compatibility of multimedia equipment - Emission Requirements
	EN	Digital cellular			

通訊 Communication System

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	300910:200 2	telecommunications system (Phase 2+) (GSM); Radio transmission and reception (GSM 05.05 version 8.5.1 Release 1999)			
	EN 300919:200 1	Digital cellular telecommunications system (Phase 2+) (GSM); Types of Mobile Stations (MS) (GSM 02.06 version 7.0.1 Release 1998)			
	EN 300925:200 1:2000	Digital cellular telecommunications system (Phase 2+) (GSM); Voice Group Call Service (VGCS) - Stage 1 (GSM 02.68 version 7.0.2 Release 1998)			
	EN 300926:200 0	Digital cellular telecommunications system (Phase 2+) (GSM); Voice Broadcast Service (VBS) - Stage 1 (GSM 02.69 version 8.0.1 Release 1999)			
	EN 300965:200	Digital cellular telecommunications system (Phase 2+) (GSM); Voice Broadcast Service (VBS) - Stage 1 (GSM 02.69 version 8.0.1 Release 1999)			

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	1	2+) (GSM); Full rate speech; Voice Activity Detector (VAD) for full rate speech traffic channels (GSM 06.32 version 7.0.1 Release 1998)			
	EN 301087:200 1	Digital cellular telecommunications system (Phase 2 and Phase 2+) (GSM); Base Station System (BSS) equipment specification; Radio aspects (GSM 11.21 version 8.2.1 Release 1999)			
	EN 301419-1:2 000	Digital cellular telecommunications system (Phase 2) (GSM); Attachment requirements for Global System for Mobile communications (GSM); Part 1: Mobile stations in the GSM 900 and DCS 1 800 bands; Access (GSM 13.01 version 4.1.1)			

通訊 Communication System

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 301419-3:2 006	Digital cellular telecommunications system (Phase 2+); Attachment requirements for Global System for Mobilecommunications (GSM); Advanced Speech Call Items (ASCI); Mobile Stations; Access (GSM 13.68 version 5.0.2 Release 1996)			
	EN 301419-7:2 006	Digital cellular telecommunications system (Phase 2+) (GSM); Attachment requirements for Global System for Mobile communications (GSM); Railways Band (R-GSM); Mobile Stations; Access (GSM 13.67 version 5.1.1 Release 1996)			
	EN 301502:201 6	Global System for Mobile communications (GSM); Base Station (BS) equipment; Harmonised Standard covering the			

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		essential requirements of article 3.2 of Directive 2014/53/EU			
	EN 301511:2016	Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU			
	EN 301515:2018	Global System for Mobile communication (GSM); Requirements for GSM operation on railways			
	EN 302065:2016	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB) for communications purposes; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive			

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 2: Requirements for UWB location tracking			
	EN 302065-2:2016				
		Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB); Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 3: Requirements for UWB devices for road and rail vehicles			
	EN 302065-3:2016				
	EN 302448:201	Satellite Earth Stations and Systems (SES); Harmonized EN			

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	6	for tracking Earth Stations on Trains (ESTs) operating in the 14/12 GHz frequency bands covering essential requirements under article 3.2 of the R&TTE directive			
	EN 302608:2017	Short Range Devices (SRD); Radio equipment for Eurobalise railway systems; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU			
	EN 303609:2016	Global System for Mobile communications (GSM); GSM Repeaters; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU			
鐵路專用無線電 Railway radio	IEC 62279:2015 (EN 50128:	Railway applications - Communication, signalling and processing systems - Software for	鐵路專用無線電 Railway radio		

通訊 Communication System						
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題	
	2020)	railway control and protection systems				
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling				
	IEC 62845:2015	Railway applications - Radio remote control system of traction vehicles for shunting application				
	IEC 61375-2-3:2015	Electronic railway equipment - Train communication network (TCN) - Part 2-3: TCN communication profile				
列車間通訊 Train communication	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems	列車間通訊 Train communication			

通訊 Communication System					
1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling			
	IEC 61375-2-6:2018	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication			
車地通訊 Vehicle-to-ground communication	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems	車地通訊 Vehicle-to-ground communication		
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling			

■ 軌道系統

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
鋼軌 Vignole rail	CNS 14827 (UIC 861-3:1969)	60kg 普通鋼軌之剖面	軌道銲接 Track welding	EN 14587-1:2018	Railway applications - Infrastructure - Flash butt welding of new rails - Part 1: R220, R260, R260Mn, R320Cr, R350HT, R350LHT, R370CrHT and R400HT grade rails in a fixed plant
	CNS 14828 (UIC 861-1:1969)	54kg 普通鋼軌之剖面		EN 14587-2:2009	Railway applications - Track - Flash butt welding of rails - Part 2: New R220, R260, R260Mn and R350HT grade rails by mobile welding machines at sites other than a fixed plant
	CNS 15219 (UIC 860:2008)	標準型鋼軌		EN 14730-1:2017	Railway applications - Track - Aluminothermic welding of rails - Part 1: Approval of welding processes
	CNS 16075-1 (EN 13674-1:2011)	鐵路應用 - 鋼軌 - 第 1 部: 46 kg/m 以上鋼軌		EN 14730-2:2006	Railway applications - Track - Aluminothermic welding of rails - Part 2: Qualification of aluminothermic welders, approval of contractors and acceptance of welds
	EN 10027-1: 2016	Designation systems for steels - Part 1: Steel names		EN 15594:2009	Railway applications - Track - Restoration of rails by electric arc welding

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 13674-4:2019	Railway applications - Track - Rail - Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m		EN 16771:2016	Railway applications - Infrastructure - Aluminothermic welding of grooved rails
	EN 13803:2017	Railway applications - Track - Track alignment design parameters - Track gauges 1 435 mm and wider		EN 13977:2011	Railway applications - Track - Safety requirements for portable machines and trolleys for construction and maintenance
	EN 13848-1:2019	Railway applications - Track - Track geometry quality - Part 1: Characterization of track geometry		EN 14033-1:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 1: Technical requirements for running
	EN 13848-2:2006	Railway applications - Track - Track geometry quality - Part 2: Measuring systems - Track recording vehicles	軌道檢測 Rail inspection	EN 14033-2:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 2: Technical requirements for travelling and working
	EN 13848-3:2009	Railway applications - Track - Track geometry quality - Part 3: Measuring systems - Track construction and maintenance machines		EN 14033-3:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 3: General safety requirements
	EN 13848-4:2011	Railway applications - Track - Track geometry quality - Part 4: Measuring systems - Manual and lightweight devices		EN 14033-4:2019	Railway applications - Track - Railbound construction and maintenance machines - Part 4: Technical requirements for running, travelling and working on urban rail

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 13848-5:2017	Railway applications - Track - Track geometry quality - Part 5: Geometric quality levels - Plain line, switches and crossings		EN 15273-1:2013 + A1:2016 / AC:2017	Railway applications - Gauges - Part 1: General - Common rules for infrastructure and rolling stock
	EN 13848-6:2014	Railway applications - Track - Track geometry quality - Part 6: Characterisation of track geometry quality		EN 15273-2:2013 + A1:2016	Railway applications - Gauges - Part 2: Rolling stock gauge
				EN 15273-3:2013 + A1:2016	Railway applications - Gauges - Part 3: Structure gauges
				EN 15746-1:2010+A 1:2011	Railway applications - Track - Road-rail machines and associated equipment - Part 1: Technical requirements for running and working
				EN 15746-2:2010+A 1:2011	Railway applications - Track - Road-rail machines and associated equipment - Part 2: General safety requirements
				EN 16729-1:2016	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 1: Requirements for ultrasonic inspection and evaluation principles

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 16729-3:2018	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 3: Requirements for identifying internal and surface rail defects
				EN 16729-4:2018	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 4: Qualification of personnel for non-destructive testing on rails
				EN 17069-1:2019	Railway applications - Systems and procedures for change of track gauge - Part 1: Automatic Variable Gauge Systems
			護軌 Guard rail, Check rail	EN 13674-3:2006+A 1:2010	Railway applications - Track - Rail - Part 3: Check rails
				CNS 14566 (UIC 864-1)	螺旋道釘
			其他	CNS 14567	螺旋道釘檢驗法
			Others	CNS 14568 (UIC 864-2)	軌道用螺栓及螺帽
				CNS 14569	軌道用螺栓及螺帽檢驗法

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				(UIC 864-2)	
				CNS 14625 (UIC 864-3)	軌道用彈簧墊圈
				CNS 14626 (UIC 866)	錳鋼岔心
				EN 13231-3:2012	Railway applications - Track - Acceptance of works - Part 3: Acceptance of reprofiling rails in track
				EN 14811:2019	Railway applications - Track - Special purpose rail - Grooved rails and associated construction profiles
				EN 15302:2008+A1:2010	Railway applications - Method for determining the equivalent conicity
				EN 15427:2008+A1:2010	Railway applications - Wheel/rail friction management - Flange lubrication
				EN 15954-1:2013	Railway applications - Track - Trailers and associated equipment - Part 1: Technical requirements for running and working

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 15954-2:2013	Railway applications - Track - Trailers and associated equipment - Part 2: General safety requirements			Railway applications - Track - Trailers and associated equipment - Part 2: General safety requirements
	EN 15955-1:2013	Railway applications - Track - Demountable machines and associated equipment - Part 1: Technical requirements for running and working			Railway applications - Track - Demountable machines and associated equipment - Part 1: Technical requirements for running and working
	EN 15955-2:2013	Railway applications - Track - Demountable machines and associated equipment - Part 2: General safety requirements			Railway applications - Track - Demountable machines and associated equipment - Part 2: General safety requirements
	EN 16273:2014	Railway applications - Track - Forged rail transitions			Railway applications - Track - Forged rail transitions
道床 Track bed	EN 13232-1:2003	Railway applications - Track - Switches and crossings - Part 1: Definitions	道 碴 軌 道 Ballasted track		Railway applications - Track - Switches and crossings - Part 1: Definitions
	EN 13232-2:2003 +A1:2011	Railway applications - Track - Switches and crossings - Part 2: Requirements for geometric design	無 道 碴 軌 道 Ballastless track		Railway applications - Ballastless track systems - Part 1: General requirements
	EN 13674-2:2019	Railway applications - Track - Rail - Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46		EN 16432-2:2017	Railway applications - Ballastless track systems - Part 2: System design, subsystems and components

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		kg/m and above			
			木質軌枕 Wood sleeper	EN 13145:2001+A1: 2011	Railway applications - Track - Wood sleepers and bearers
			空心軌枕 Hollow sleeper	EN 16431:2014	Railway applications - Track - Hollow sleepers and bearers
				EN 13230-1:2016	Railway applications - Track - Concrete sleepers and bearers - Part 1: General requirements
				EN 13230-2:2016	Railway applications - Track - Concrete sleepers and bearers - Part 2: Prestressed monoblock sleepers
			混凝土軌枕 Concrete sleeper	EN 13230-3:2016	Railway applications - Track - Concrete sleepers and bearers - Part 3: Twin-block reinforced sleepers
				EN 13230-4:2016	Railway applications - Track - Concrete sleepers and bearers - Part 4: Prestressed bearers for switches and crossings
				EN 13230-5:2016	Railway applications - Track - Concrete

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					sleepers and bearers - Part 5: Special elements
				EN 16730:2016	Railway applications - Track - Concrete sleepers and bearers with under sleeper pads
			合成軌枕 Composite sleeper		
			其他 Others	EN 16494:2015	Railway applications - Requirements for ERTMS Trackside Boards
特殊軌 Special track			道岔 Switches and crossings	CNS 16133 (EN 13252-4)	鐵路應用 - 軌道 - 尖軌及岔心 - 第 4 部: 致動、鎖定及檢查
				EN 13231-1:2013	Railway applications - Track - Acceptance of works - Part 1: Works on ballasted track - Plain line, switches and crossings
				EN 13231-4:2013	Railway applications - Track - Acceptance of works - Part 4: Acceptance of reprofiling rails in switches and crossings
				EN 13231-5:2018	Railway applications - Track - Acceptance of works - Part 5: Procedures for rail reprofiling in plain line, switches, crossings and expansion devices

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 13232-3:2003+A 1:2011	Railway applications - Track - Switches and crossings - Part 3: Requirements for wheel/rail interaction
				EN 13232-5:2005+A 1:2011	Railway applications - Track - Switches and crossings - Part 5: Switches
				EN 13232-6:2005+A 1:2011	Railway applications - Track - Switches and crossings - Part 6: Fixed common and obtuse crossings
				EN 13232-7:2006+A 1:2011	Railway applications - Track - Switches and crossings - Part 7: Crossings with moveable parts
				EN 13232-8:2007+A 1:2011	Railway applications - Track - Switches and crossings - Part 8: Expansion devices
				EN 13232-9:2006+A 1:2011	Railway applications - Track - Switches and crossings - Part 9: Layouts
				EN 14587-3:2012	Railway applications - Track - Flash butt welding of rails - Part 3: Welding in association with crossing construction

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 15689:2009	Railway applications - Track - Switches and crossings - Crossing components made of cast austenitic manganese steel
	EN 16725:2016				Railway applications - Track - Restoration and repair of manganese crossings
扣件系統 Fastening system	CNS 16143-2 (EN 13481-2:2012 +A1:2017)	鐵路應用－軌道－扣件系統之性能要求－第 2 部：混凝土軌枕用扣件系統	扣件性能測試 FS performance test	EN 13146-1:2019	Railway applications - Track - Test methods for fastening systems - Part 1: Determination of longitudinal rail restraint
	EN 13481-1:2012	Railway applications - Track - Performance requirements for fastening systems - Part 1: Definitions		EN 13146-2:2012	Railway applications - Track - Test methods for fastening systems - Part 2: Determination of torsional resistance
	EN 13481-3:2012	Railway applications - Track - Performance requirements for fastening systems - Part 3: Fastening systems for wood sleepers		EN 13146-3:2012	Railway applications - Track - Test methods for fastening systems - Part 3: Determination of attenuation of impact loads
	EN 13481-4:2012	Railway applications - Track - Performance requirements for fastening systems - Part 4: Fastening systems for steel sleepers		EN 13146-4:2012+A1:2014	Railway applications - Track - Test methods for fastening systems - Part 4: Effect of repeated loading

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	EN 13481-5:2012 +A1:2017	Railway applications - Track - Performance requirements for fastening systems - Part 5: Fastening systems for slab track with rail on the surface or rail embedded in a channel		EN 13146-5:2012/AC :2017	Railway applications - Track - Test methods for fastening systems - Part 5: Determination of electrical resistance
	EN 13481-7:2012	Railway applications - Track - Performance requirements for fastening systems - Part 7: Special fastening systems for switches and crossings and check rails		EN 13146-6:2012	Railway applications - Track - Test methods for fastening systems - Part 6: Effect of severe environmental conditions
	EN 13481-8:2006	Railway applications — Track - Performance requirements for fastening systems Part 5: Fastening systems for slab track with rail on the surface or rail embedded in a channel		EN 13146-7:2019	Railway applications - Track - Test methods for fastening systems - Part 7: Determination of clamping force and uplift stiffness
				EN 13146-8:2012	Railway applications - Track - Test methods for fastening systems - Part 8: In service testing
				EN 13146-9:2009+A 1:2011	Railway applications - Track - Test methods for fastening systems - Part 9: Determination of stiffness

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				EN 13146-10:2017	Railway applications - Track - Test methods for fastening systems - Part 10: Proof load test for pull-out resistance
		軌道預警系統 Track warning systems		EN 16704-2-1:2016	Railway applications - Track - Safety protection on the track during work - Part 2-1: Common solutions and technologies - Technical requirements for Track Warning Systems (TWS)
安全措施		止衝檔 Buffer stops			
施		阻輪器 Wheel stop			
Safety		其他		EN 16704-2-2:2016	Railway applications - Track - Safety protection on the track during work - Part 2-2: Common solutions and technology - Requirements for barriers
measure		Others		EN 16704-3:2016	Railway applications - Track - Safety protection on the track during work - Part 3: Competences for personnel related to work on or near tracks

■ 智慧鐵道系統

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
通訊系統 Communication system			通訊安全 Communication safety	IEC 62280:2014 (EN 50159)	Railway applications - Communication, signalling and processing systems - Safety-related communication in transmission systems
系統介面 System interface			系統相容性 System compatibility	IEC 62427:2007 (EN 50238-1)	Railway applications - Compatibility between rolling stock and train detection systems
			安全要求 Safety requirement	IEC 62425:2007 (EN 50129)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling
			軟體要求 Software requirement	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems
雲端設備 Cloud equipment			自動化及控制系統安全 Automation and control system security	IEC 62443-2-1:2010 IEC 62443-2-4:2015+ AMD1:2017 CSV	Industrial communication networks - Network and system security - Part 2-1: Establishing an industrial automation and control system security program Security for industrial automation and control systems - Part 2-4: Security program requirements for IACS service providers

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
	IEC 62443-3-2:2020	Security for industrial automation and control systems - Part 3-2: Security risk assessment for system design			
	IEC 62443-3-3:2013	Industrial communication networks - Network and system security - Part 3-3: System security requirements and security levels			
	IEC 62443-4-1:2018	Security for industrial automation and control systems - Part 4-1: Secure product development lifecycle requirements			
	IEC 62443-4-2:2019	Security for industrial automation and control systems - Part 4-2: Technical security requirements for IACS components			
環境監測 Environmental monitoring		Railway applications - Environmental conditions for equipment - Part 2: Fixed electrical installations	裝置安裝需求 Device installation requirement 安全要求 Safety requirement	EN 50125-2:2002	

■ 系統驗證(RAMS)

1 階項目	標準號碼	標準標題	項目	標準號碼	標準標題
整體鐵道系統驗證 Total railway system RAMS	IEC 62278:2002	Railway applications - Specification and demonstration of reliability, availability, maintainability and safety (RAMS)	號誌驗證 Signalling RAMS	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems
	EN 50126-1:2017	Railway Applications - The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS) - Part 1: Generic RAMS Process		IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling
	EN 50126-2:2017	Railway Applications - The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS) - Part 2: Systems Approach to Safety	通訊驗證 Communication RAMS	IEC 62280:2014 (EN 50159)	Railway applications - Communication, signalling and processing systems - Safety-related communication in transmission systems
			車輛驗證 Vehicle RAMS	IEC 61377:2016 (EN 61377)	Railway applications - Rolling stock - Combined test method for traction systems

1 階項目	標準號碼	標準標題	項目	標準號碼	標準標題
				IEC 61881-3:2012+A MD1:2013 CSV	Railway applications - Rolling stock equipment - Capacitors for power electronics Part 3: Electric double-layer capacitors
				EN 13260	Railway applications - Wheelsets and bogies - Wheelsets - Product requirements
				EN 13261	Railway applications - Wheelsets and bogies - Axles - Product requirements
			供電驗證 Power supply RAMS		
			軌道安全 Track safety	EN 13146-8	Railway applications. Track. Test methods for fastening systems. In service testing
			系統風險與評估 System risk evaluation		

■ 其他系統

1 階項目	標準號碼	標準標題
一般機電系統 General electromechanical system	EN 16334:2014	Railway applications - Passenger Alarm System - System requirements
	ISO 3864-1:2011	Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings
	ISO 3864-2:2016	Graphical symbols — Safety colours and safety signs — Part 2: Design principles for product safety labels
	ISO 3864-3:2012	Graphical symbols — Safety colours and safety signs — Part 3: Design principles for graphical symbols for use in safety signs
	ISO 3864-4:2011	Graphical symbols — Safety colours and safety signs — Part 4: Colorimetric and photometric properties of safety sign materials
	ISO 7000:2019	Graphical symbols for use on equipment — Registered symbols
	ISO 7001:2007/AMD 4:2017	Graphical symbols — Public information symbols — Amendment 4
	ISO 7010:2019/AMD 1:2020	Graphical symbols — Safety colours and safety signs — Registered safety signs — Amendment 1
	EN 15380-1:2006	Railway applications - Designation system for railway vehicles - Part 1: General principles
	EN 15380-2:2006	Railway applications - Designation system for railway vehicles - Part 2: Product groups
	EN 15380-3:2006	Railway applications - Designation system for railway vehicles - Part 3: Designation of installation sites and locations
	EN 15153-2:2013	Railway applications - External visible and audible warning devices for trains - Part 2: Warning horns
	空氣動力學 Aerodynamics	EN 14067-1:2003
EN 14067-3:2003		Railway applications - Aerodynamics - Part 3: Aerodynamics in tunnels

I 階項目	標準號碼	標準標題
	EN 14067-4:2013+A1:2018	Railway applications - Aerodynamics - Part 4: Requirements and test procedures for aerodynamics on open track
	EN 14067-5:2006+A1:2010	Railway applications - Aerodynamics - Part 5: Requirements and test procedures for aerodynamics in tunnels
	EN 14067-6:2018	Railway applications - Aerodynamics - Part 6: Requirements and test procedures for cross wind assessment
	EN 15016-1:2004	Technical drawings - Railway applications - Part 1: General Principles
	EN 15016-2:2004/AC:2007	Technical drawings - Railway applications - Part 2: Parts lists
工程圖要求 Drawings	EN 15016-3:2004	Technical drawings - Railway applications - Part 3: Handling of modifications of technical documents
	EN 15016-4:2006	Technical drawings - Railway applications - Part 4: Data exchange
	EN 16584-1:2017	Railway applications - Design for PRM use - General requirements - Part 1: Contrast
	EN 16584-2:2017	Railway applications - Design for PRM use - General requirements - Part 2: Information
	EN 16584-3:2017	Railway applications - Design for PRM use - General requirements - Part 3: Optical and friction characteristics
行動不便 PRM	EN 16585-1:2017	Railway applications - Design for PRM use - Equipment and components onboard rolling stock - Part 1: Toilets
	EN 16585-2:2017	Railway applications - Design for PRM use - Equipment and components on board rolling stock - Part 2: Elements for sitting, standing and moving
	EN 16585-3:2017	Railway applications - Design for PRM use - Equipment and components on board rolling stock - Part 3: Clearways and internal doors
	EN 16586-1:2017	Railway applications - Design for PRM use - Accessibility of persons with reduced mobility to rolling stock - Part 1: Steps for access and egress

1 階項目	標準號碼	標準標題
	EN 16586-2:2017	Railway applications - Design for PRM use - Accessibility of persons with reduced mobility to rolling stock - Part 2: Boarding aids
	EN 16587:2017	Railway applications - Design for PRM Use - Requirements on obstacle free routes for infrastructure
	IEC 62267:2009	Railway applications - Automated urban guided transport (AUGT) - Safety requirements
安全要求 Safety	EN 16704-1:2016	Railway applications - Track - Safety protection on the track during work - Part 1: Railway risks and common principles for protection of fixed and mobile work sites
	EN 50500:2008 + A1:2015	Measurement procedures of magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure
	EN 50553:2012+A2:2020	Railway applications - Requirements for running capability in case of fire on board of rolling stock
品質管理系統 Quality management system	ISO 22163:2017	Railway applications — Quality management system — Business management system requirements for rail organizations: ISO 9001:2015 and particular requirements for application in the rail sector