

我國鐵道類標準整體架構
(含參考標準)

交通部

中華民國 112 年 7 月 11 日修正頒布

修正一覽表

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壹、緣起及作業目標

為配合行政院推動我國軌道產業發展，提高國產化比例政策，經跨部會「軌道產業推動會報」討論，已確認我國軌道產業發展三大策略及 6+3 項行動方案，其中「制定國家標準」屬 6+3 項行動方案之一，依分工係由交通部鐵道局及經濟部標準檢驗局負責辦理。我國已於 2002 年正式加入世界貿易組織（WTO）並同時簽署技術性貿易障礙協定(Agreement on Technical Barriers to Trade, TBT)，該協定主要規範有關技術法規、標準及符合性評鑑程序的擬定採行及適用要求，以不造成技術性貿易障礙為目的，亦即於制定技術法規或標準時，若國際標準組織(如 ISO (International Organization for Standardization)、IEC (International Electrotechnical Commission)等)已訂有國際標準，即應以其為依據，以避免造成技術性貿易障礙。

面臨全球貿易自由化及科技技術發展快速的競爭環境，主導國際標準發展方向將有利於企業在國際競爭中搶得先機，因此技術先進國家之企業莫不積極與政府攜手，參與相關國際標準組織之標準制定工作，可知標準已成為國家及企業競爭策略中極重要之一環。藉由標準之制定，可協助國內業者對鐵道類產品製造與測試驗證有所依循，除能滿足鐵道營運基本需求外，亦有助創新技術開發(如原型開發)與產品輸出。同時，利用一致的標準作為進入市場之條件，使企業願意開發符合標準之品質之國產化鐵道類產品，投入相關技術研發與應用，除可提升企業本身的技術水準，亦能接軌國際市場需求，有利於將產品行銷到廣大的國際市場。

考量我國近年大力推行前瞻基礎建設與鐵道國產化，預期未來我國鐵道產業將有大量鐵道相關之 CNS 國家標準需求，爰急需加速推動研擬國家標準，惟制定國家標準之作業程序較為嚴謹，故研擬國家標準之同時，除盤點國內產業需求，以加速推動研擬業界所需之國家標準以外，亦同步建立我國鐵道類標準整體架構(含參考標準)，作為國家標準未完備前之配套措施，以提供興建、營運及產業界、顧問公司、工協會及檢測驗證單位等，於辦理採購、研發、製造、檢測驗證及後續維修等作業之重要依循，以利我國鐵道產業之發展，進而接軌國際主流市場。

貳、作業歷程

經綜整國內外標準現況、蒐集國內利害關係人之建議，並依既有軌道工程類國家標準分類，考量因應國際發展趨勢之接軌布局以及國家標準制定之能量限制等，研提我國鐵道類標準整體架構，其步驟如圖 2-1，其分類原則係以完整性高且主流之歐盟標準(EN)為基礎，參考國內產業現況，研提我國鐵道類標準之架構。



圖 2-1 我國鐵道類標準整體架構之研提步驟示意圖

參、作業成果及檢討修正機制

一. 修正作業成果說明（統計至 112 年 1 月 18 日）

本次修正作業係依據截止 112 年 1 月 18 日 CNS 之公告資訊，以及 ISO、IEC、EN、IEEE、UIC 等之公告資訊，進行蒐整更新作業，共新增 CNS、ISO、IEC、EN、UIC 合計共 44 篇標準、更新 EN、UIC 等 23 篇標準版本等相關資訊。蒐整後之更新標準資訊詳見表 3-0，亦同步更新於表 3-1 至表 3-8。

表 3-0 我國鐵道類標準整體架構-蒐整更新清單列表

項次	標準號碼	標準標題	狀態
1	CNS 16143-5	鐵路應用-軌道-扣件系統之性能要求-第 5 部：版式軌道用鋼軌安裝於表面或埋入槽內之扣件系統	新增
2	CNS 16163-2	鐵路應用-都會區與郊區鐵路車輛之空調-第 2 部：型式試驗	新增
3	CNS 16164-1	鐵路應用-鐵路車輛與列車偵測系統間相容性-第 1 部：通則	新增
4	CNS 16175-1	鐵路應用-軌道-扣件系統之試驗法-第 1 部：鋼軌縱向束制之測定	新增
5	CNS 16175-7	鐵路應用-軌道-扣件系統之試驗法-第 7 部：扣壓力與上舉勁度之測定	新增
6	CNS 16175-8	鐵路應用-軌道-扣件系統之試驗法-第 8 部：營運線上測試	新增
7	CNS 16194	鐵路應用 - 鐵路車輛之耐撞性要求	新增
8	CNS 62236-3-1	鐵路應用-電磁相容-第 3-1 部：鐵路車輛-列車與整車	新增
9	CNS 62236-3-2	鐵路應用-電磁相容-第 3-2 部：鐵路車輛-裝置	新增
10	CNS 62912	鐵路應用-鐵路車輛-車載鋰離子牽引電池	新增
11	ISO 4975:2022	Railway applications - Braking system - Quality of compressed air for pneumatic apparatus and systems	新增
12	ISO 12856-1:2022	Railway applications - Polymeric composite sleepers, bearers and transoms - Part 1: Material	新增

項次	標準號碼	標準標題	狀態
		characteristics	
13	ISO 12856-3:2022	Railway applications - Polymeric composite sleepers, bearers and transoms - Part 3: General requirements	新增
14	ISO 19659-3:2022	Railway applications - Heating, ventilation and air conditioning systems for rolling stock - Part 3: Energy efficiency	新增
15	ISO 22074-4:2022	Railway infrastructure - Rail fastening systems - Part 4: Test methods for resistance to repeated loading	新增
16	ISO 22074-8:2022	Railway infrastructure - Rail fastening systems - Part 8: Test method for vertical stiffness	新增
17	ISO 22480-1:2022	Railway applications - Concrete sleepers and bearers for track - Part 1: General requirements	新增
18	ISO 22480-2:2022	Railway applications - Concrete sleepers and bearers for track - Part 2: Prestressed monoblock sleepers	新增
19	ISO 23019:2022	Railway applications - Driving simulator for drivers' training	新增
20	ISO 23054-1:2022	Railway applications - Track geometry quality - Part 1: Characterization of track geometry and track geometry quality	新增
21	ISO 24675-1:2022	Railway Applications - Running time calculation for timetabling - Part 1: Requirements	新增
22	IEC 62590-3-1:2022	Railway applications - Fixed installations - Electronic power converters - Part 3-1: AC traction applications - Electronic power compensators	新增
23	EN 15085-6:2022	Railway applications - Welding of railway vehicles and components - Part 6: Maintenance welding requirements	新增
24	EN 15427-1-1:2022	Railway applications - Wheel/Rail friction management - Part 1-1: Equipment and Application - Flange Lubricants	新增
25	EN 15427-2-1:2022	Railway applications - Wheel/Rail friction management - Part 2-1: Properties and	新增

項次	標準號碼	標準標題	狀態
		Characteristics - Flange lubricants	
26	EN 16186-8:2022	Railway applications - Driver's cab - Part 8: Tram vehicle layout and access	新增
27	EN 17460:2022	Railway applications - Adhesive bonding of rail vehicles and their components	新增
28	EN 17495:2022	Railway Applications - Acoustics - Determination of the dynamic stiffness of elastic track components related to noise and vibration: Rail pads and rail fastening assemblies	新增
29	EN 17530:2022	Railway applications - Interior glazing for rail vehicles	新增
30	EN 17682:2022	Railway applications - Infrastructure - Resilient element for floating slab system	新增
31	EN 17824:2023	Railway applications - Ground based services - Exhaust treatment fluid (AUS 32) refilling equipment	新增
32	EN TS 103389: 2022	Rail Telecommunications (RT); Global System for Mobile communications (GSM); Usage of Session Initiation Protocol (SIP) on the Network Switching Subsystem (NSS) to Fixed Terminal Subsystem (FTS) interface for GSM Operation on Railways	新增
33	EN TS 122289: 2022	LTE; 5G; Mobile communication system for railways (3GPP TS 22.289 version 17.0.0 Release 17)	新增
34	CNS 27001 (ISO/IEC 27001)	資訊安全、網宇安全及隱私保護－資訊安全管理系統－要求事項	新增
35	ISO 21106:2019	Railway applications - Recyclability and recoverability calculation method for rolling stock	新增
36	ISO 22888:2020	Railway applications - Concepts and basic requirements for the planning of railway operation in the event of earthquakes	新增
37	ISO/IEC TR 24587: 2021	Software and systems engineering - Agile development - Agile adoption considerations	新增
38	IEC 61375-2-8: 2021	Electronic railway equipment - Train communication network (TCN) - Part 2-8: TCN conformance test	新增

項次	標準號碼	標準標題	狀態
	(EN IEC 61375-2-8:2021)		
39	IEC 62290-3:2019+ COR1:2020(EN IEC 62290-3:2019)	Railway applications - Urban guided transport management and command/control systems - Part 3: System requirements specification	新增
40	EN 13231-2:2020	Railway applications - Track - Acceptance of works - Part 2: Acceptance of reprofiling rails in plain line, switches, crossings and expansion devices	新增
41	EN 15624:2021	Railway applications - Braking - Empty-loaded changeover devices	新增
42	EN 16334-2:2020	Railway applications - Passenger Alarm System - Part 2: System requirements for urban rail	新增
43	UIC 506:2008	Rules governing application of the enlarged GA, GB, GB1, GB2, GC and GI3 gauges	新增
44	IEC 62625-1:2013	Electronic railway equipment - On board driving data recording system - Part 1: System specification	新增
45	EN 14067-5:2021+ AC:2023	Railway applications - Aerodynamics - Part 5: Requirements and assessment procedures for aerodynamics in tunnels	更新版本
46	EN 15085-3:2022	Railway applications - Welding of railway vehicles and components - Part 3: Design requirements	更新版本
47	EN 15437-1:2009+ A1:2022	Railway applications - Axlebox condition monitoring - Interface and design requirements - Part 1: Track side equipment and rolling stock axlebox	更新版本
48	EN 15437-2:2012+ A1:2022	Railway applications - Axlebox condition monitoring - Interface and design requirements - Part 2: Performance and design requirements of on-board systems for temperature monitoring	更新版本
49	EN 15551:2022	Railway applications - Railway rolling stock - Buffers	更新版本
50	EN 15566:2022	Railway applications - Railway Rolling stock - Draw gear and screw coupling	更新版本

項次	標準號碼	標準標題	狀態
51	EN 15611:2020+A1:2022	Railway applications - Braking - Relay valves	更新版本
52	EN 16116-1:2022	Railway applications - Design requirements for steps, handrails and associated access for staff - Part 1: Passenger vehicles, vans and locomotives	更新版本
53	EN 16186-3:2022	Railway applications - Driver's cab - Part 3: Design of displays for heavy rail vehicles	更新版本
54	EN 16334-1:2014+A1:2022	Railway applications - Passenger Alarm System - Part 1: System requirements for mainline rail	更新版本
55	EN 15625:2021	Railway applications. Braking. Automatic variable load sensing devices	更新版本
56	EN 15807:2021	Railway applications. Pneumatic half couplings	更新版本
57	EN 16839:2022	Railway applications - Rolling stock - Head stock layout	更新版本
58	EN 50122-1:2022	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock	更新版本
59	EN 50122-2:2022	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 2: Provisions against the effects of stray currents caused by DC traction systems	更新版本
60	EN 50122-3:2022	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 3: Mutual Interaction of AC and DC traction systems	更新版本
61	EN 50155:2021	Railway applications. Rolling stock. Electronic equipment	更新版本
62	EN 50163:2004+A3:2022	Railway applications - Supply voltages of traction systems	更新版本
63	EN 50317:2012+A1:2022	Railway applications - Current collection systems - Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line	更新版本
64	EN 50318:2018	Railway applications - Current collection systems -	更新

項次	標準號碼	標準標題	狀態
	+ A1:2022	Validation of simulation of the dynamic interaction between pantograph and overhead contact line	版本
65	EN 50367:2020 + A1:2022	Railway applications - Fixed installations and rolling stock - Criteria to achieve technical compatibility between pantographs and overhead contact line	更新版本
66	EN 50388-1:2022	Railway Applications - Fixed installations and rolling stock - Technical criteria for the coordination between electric traction power supply systems and rolling stock to achieve interoperability - Part 1: General	更新版本
67	UIC IRS 50548: 2022	Brakes – Requirements of friction test benches for the international certification of brake pads and brake blocks	更新版本

二. 成果與檢討修正機制

綜合上述，以國外先進鐵道發展國家之標準架構之架構分類為基礎，考量我國國內鐵道政策發展(如 2020 交通科技產業政策白皮書)、部頒技術規範(如輕軌系統建設及車輛技術標準規範)、蒐整產業界採用之主流標準、參考利害關係人(主管機關、營運單位、法人單位、產業界等機關單位)建議之標準後，將我國鐵道類標準整體架構分為七大系統(如圖 3-1 至圖 3-9 所示)，分別為車輛系統、供電系統、號誌與通訊系統、軌道系統、智慧鐵道系統、系統驗證與其他系統，並依照系統、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，各系統之參考標準如表 3-1 至表 3-8 所示。

後續軌道興建/營運採購機關(構)、顧問公司、工協會及產業界等相關單位，如認為本標準架構內之標準有需補充時，後續由交通部鐵道局或鐵研中心邀利害關係人開會研商檢討修訂後，循序報部函知各界參考引用。

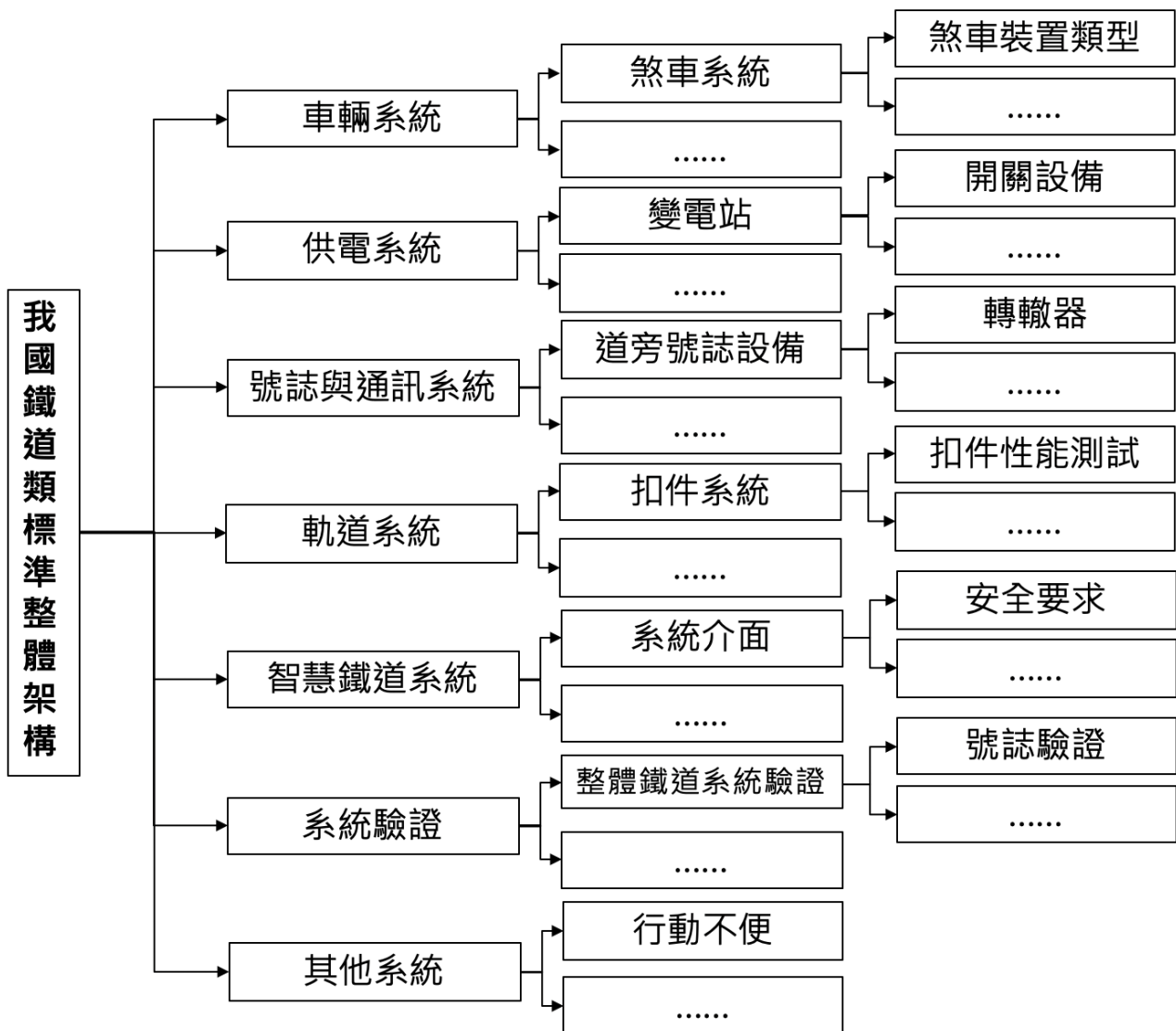


圖 3-1 我國鐵道類標準整體架構圖

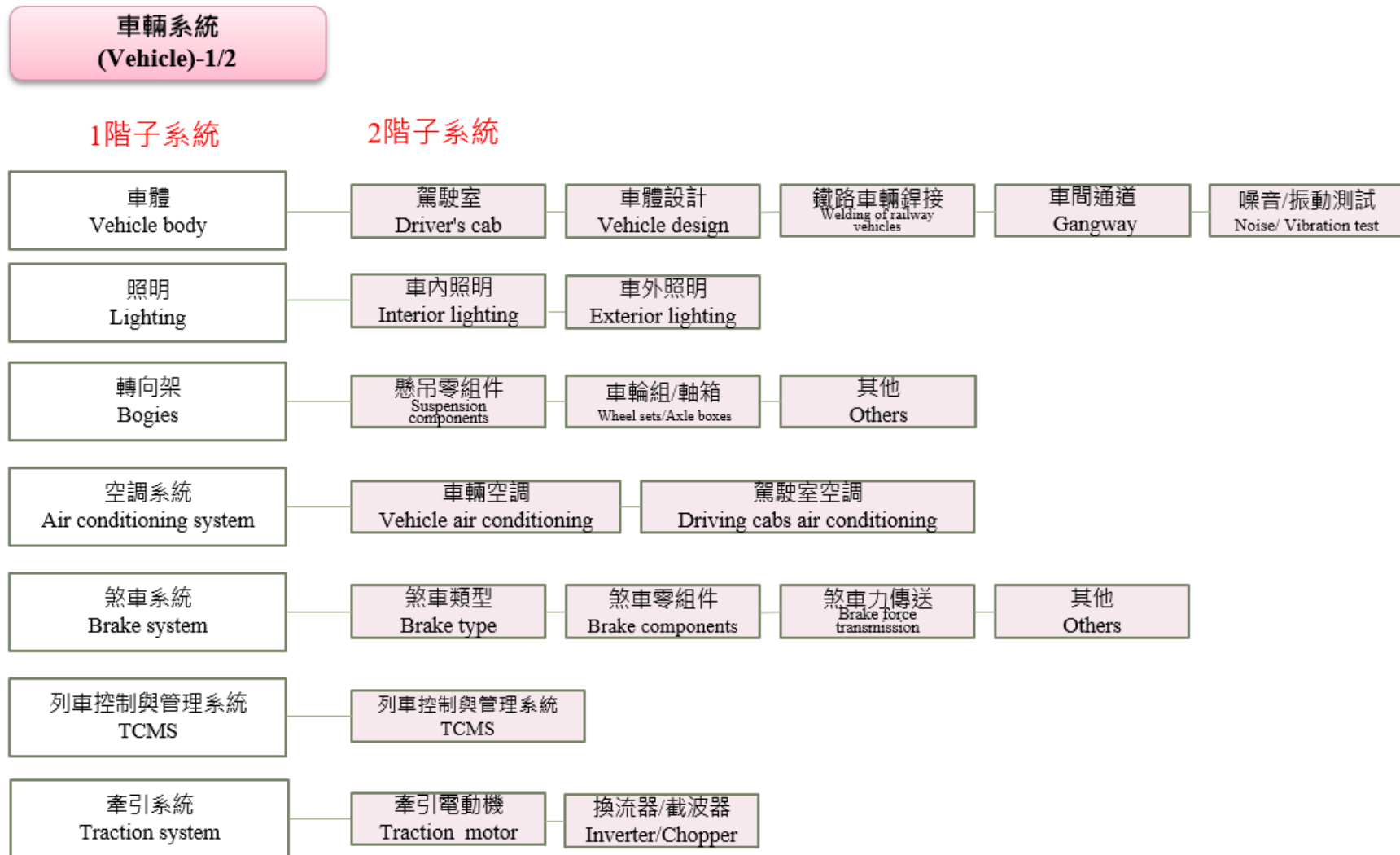


圖 3-2 我國鐵道類標準整體架構圖-車輛系統

車輛系統
(Vehicle)-2/2

1階子系統

2階子系統

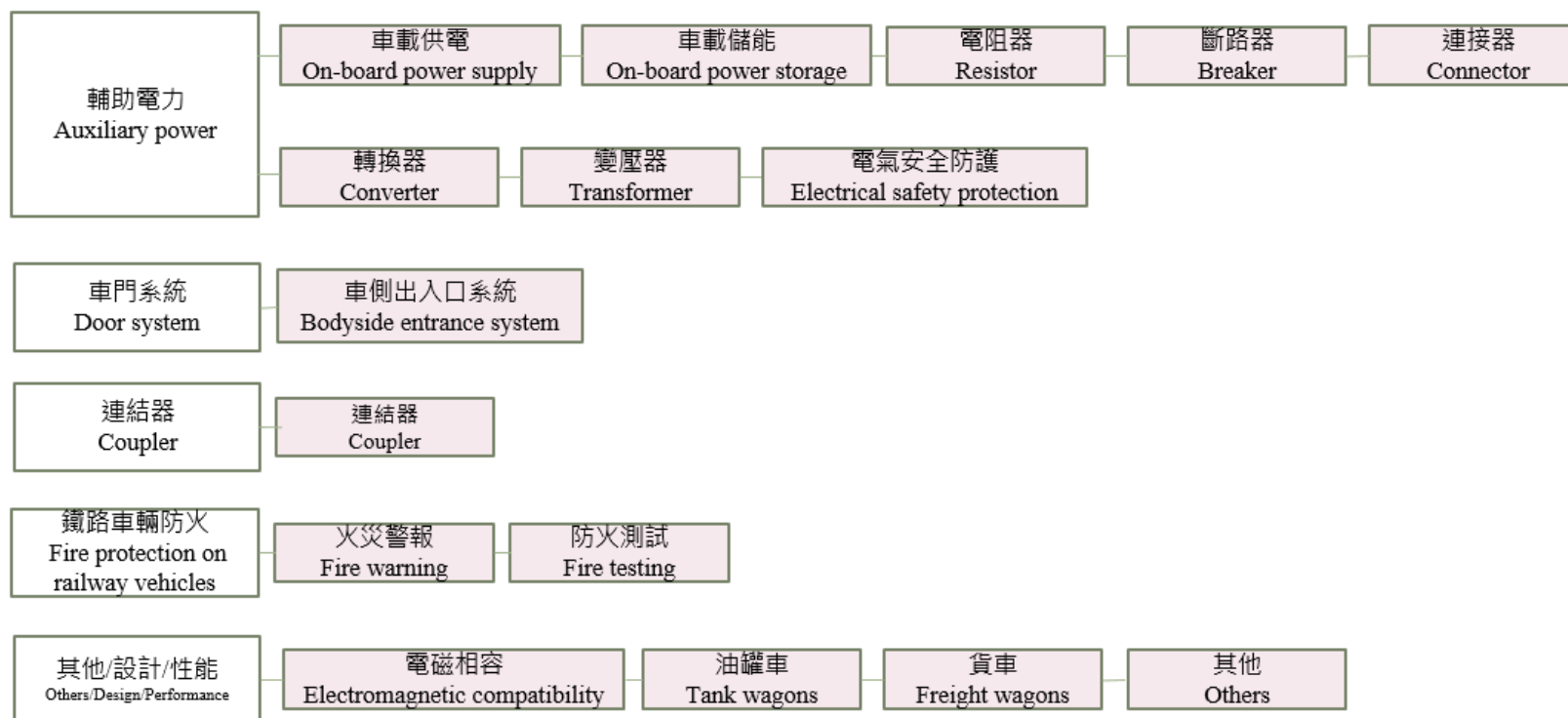


圖 3-3 我國鐵道類標準整體架構圖-車輛系統（續）

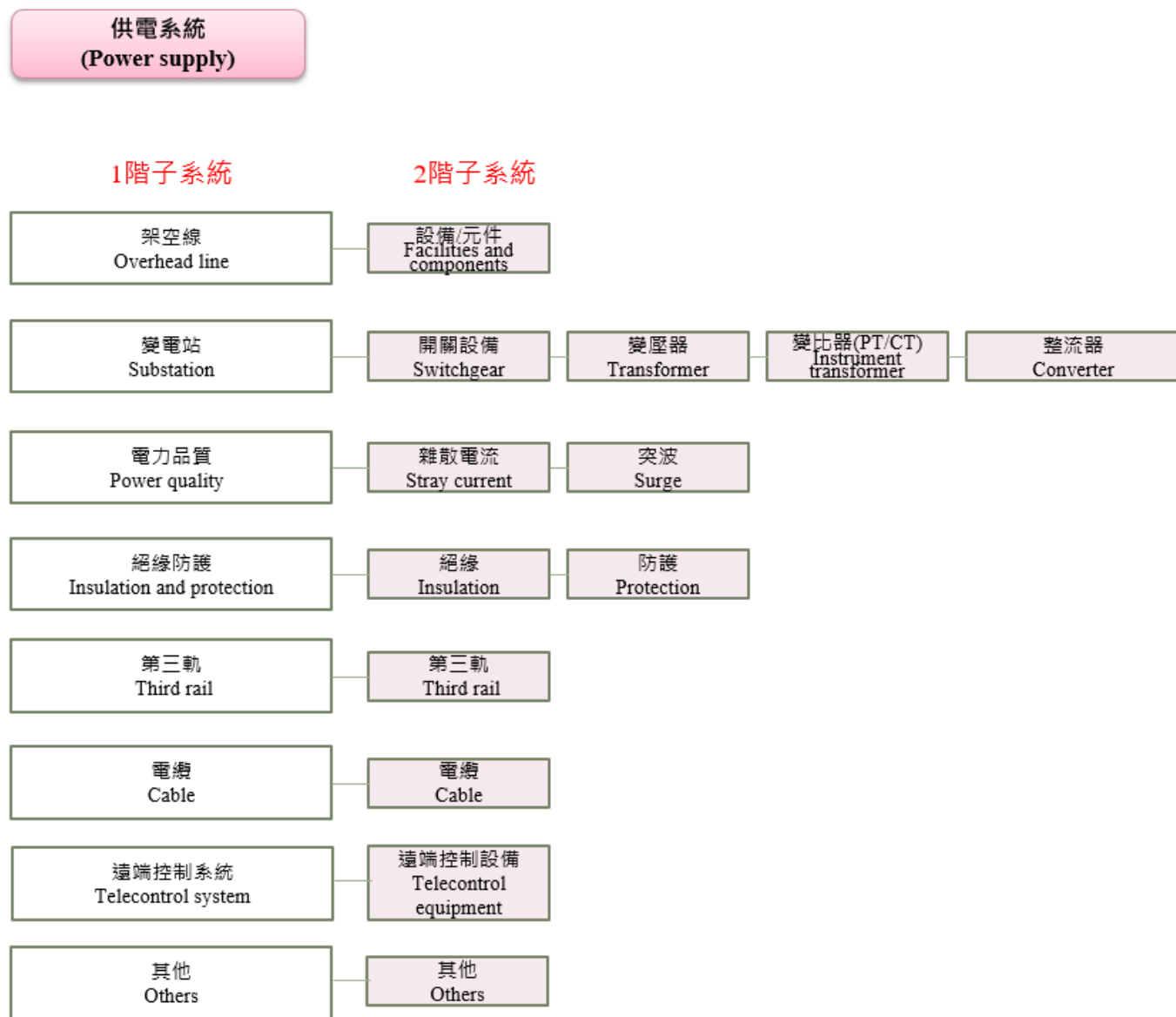


圖 3-4 我國鐵道類標準整體架構圖-供電系統

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

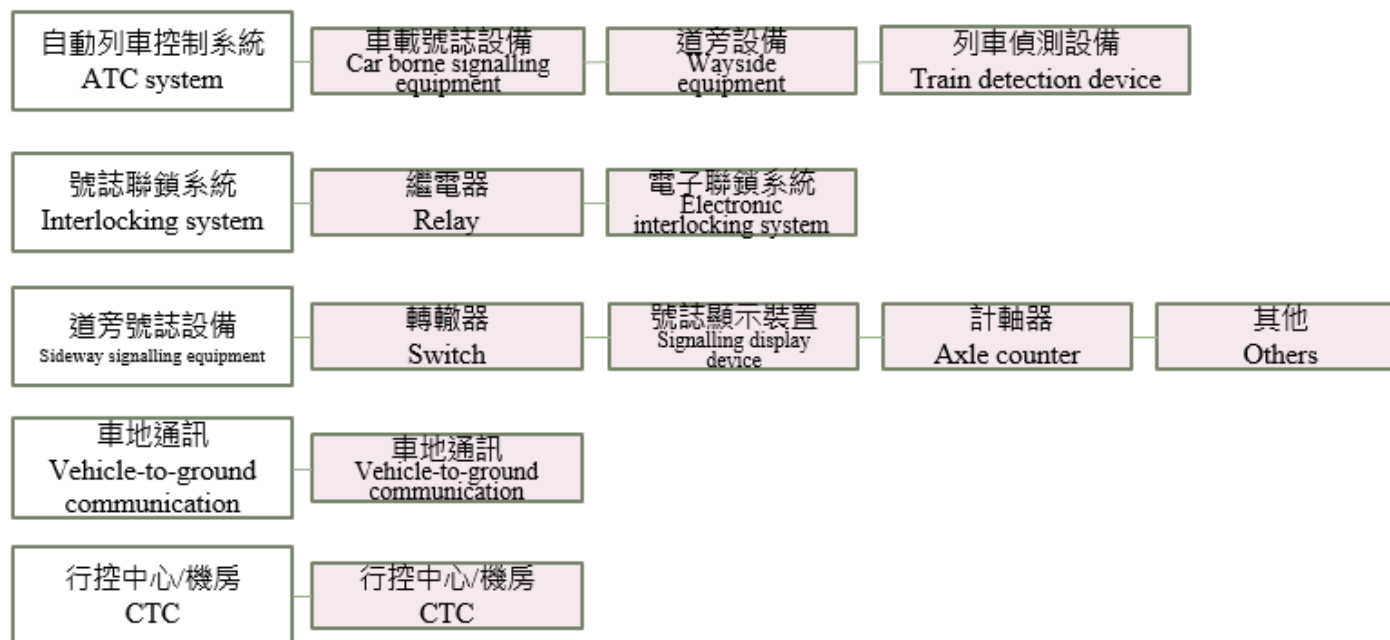


圖 3-5 我國鐵道類標準整體架構圖-號誌系統

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

通訊系統
(Communication system)

1階子系統 2階子系統

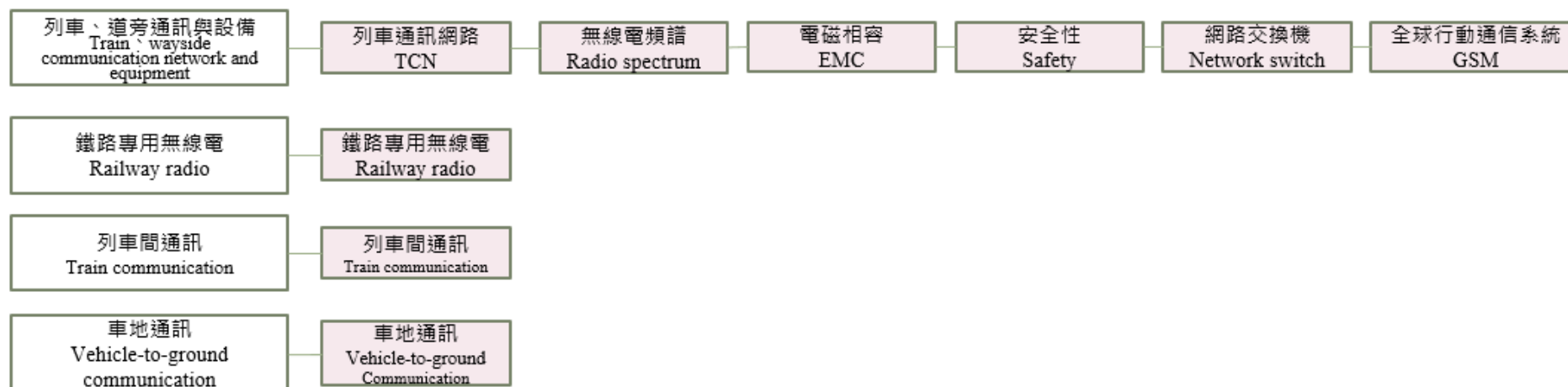


圖 3-6 我國鐵道類標準整體架構圖-通訊系統

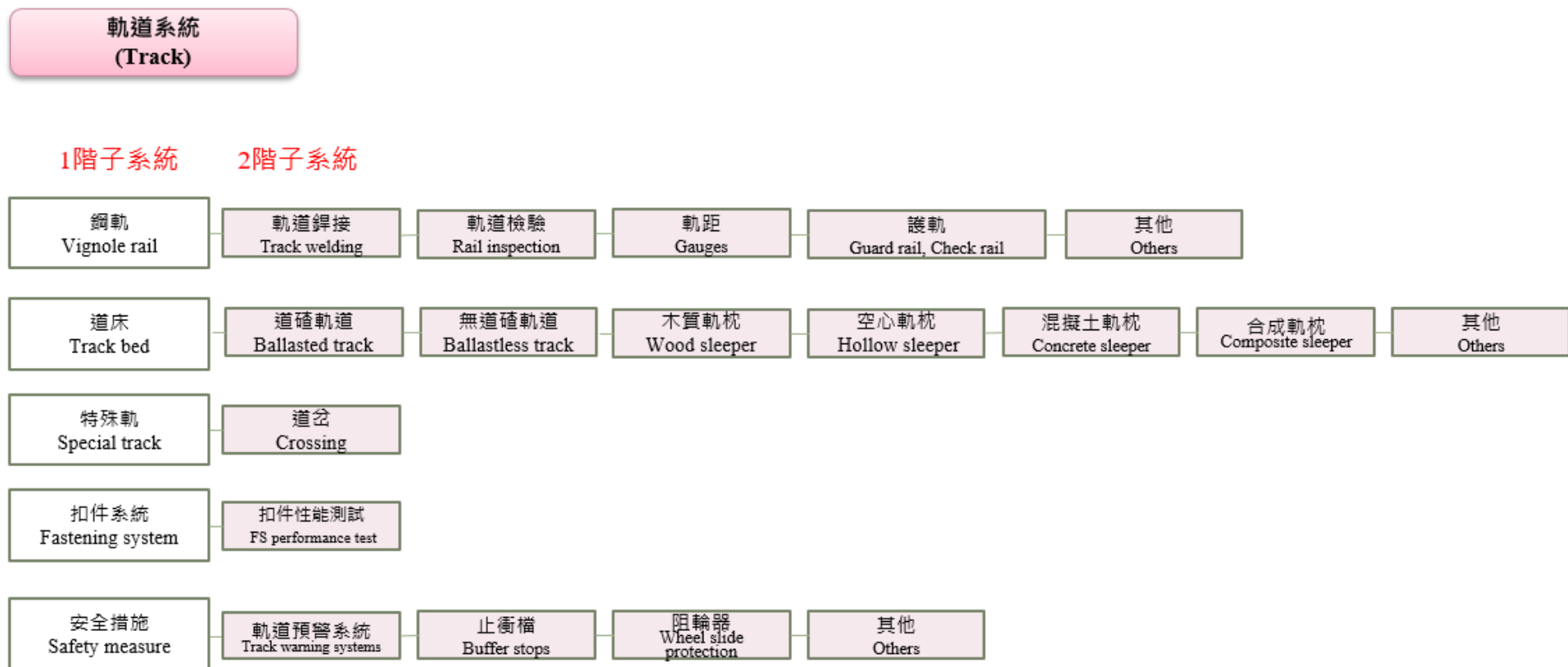


圖 3-7 我國鐵道類標準整體架構圖-軌道系統

智慧鐵道
(Intelligence of rail)

1階子系統

2階子系統

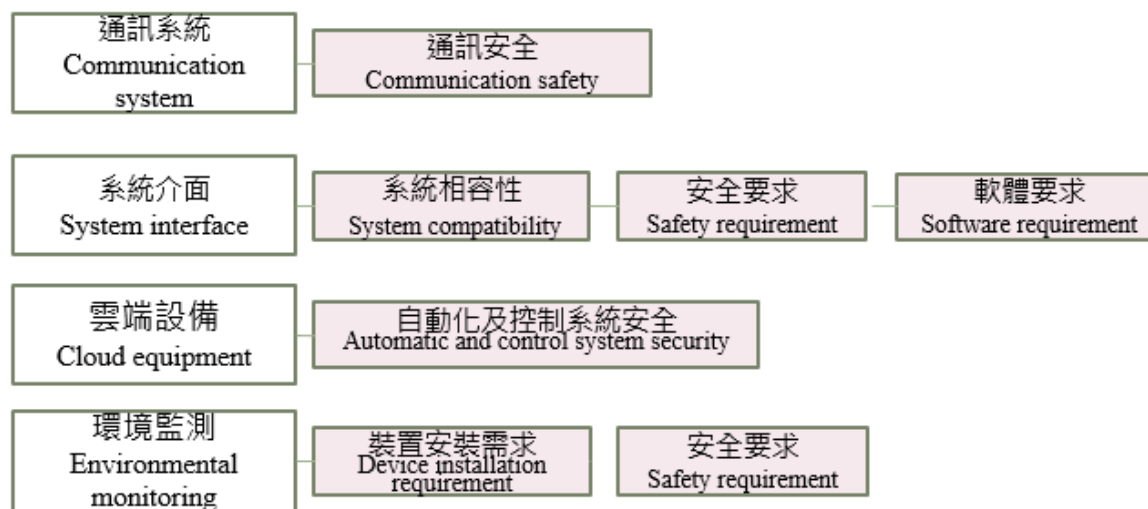


圖 3-8 我國鐵道類標準整體架構圖-智慧鐵道系統



圖 3-9 我國鐵道類標準整體架構圖-系統驗證及其他系統

■ 車輛系統

表 3-1 我國鐵道類標準整體架構-車輛系統列表

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
	CNS 16194 (EN 15227:2020)	鐵路應用 - 鐵路車輛之耐 撞性要求		EN 16186-1:2014 + A1:2018	Railway applications - Driver's cab - Part 1: Anthropometric data and visibility
	EN 1999-1-1:2007	Eurocode 9 Design of aluminum structures- General rules and rules for buildings		EN 16186-2:2017	Railway applications - Driver's cab - Part 2: Integration of displays, controls and indicators
	EN 1999-1- 2:2007+AC:2009	Eurocode 9 Design of aluminum structures Structures susceptible to fatigue		EN 16186-3:2022	Railway applications - Driver's cab - Part 3: Design of displays

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 - Running Behaviour and stationary tests		EN 16186-4:2019	Railway applications - Driver's cab - Part 4: Layout and access
				EN 16186-5:2021	Railway applications - Driver's cabs - Part 5: External visibility for tram vehicles
				EN 16186-8:2022	Railway applications - Driver's cab - Part 8: Tram vehicle layout and access
			車體設計 Vehicle design	ISO 21106:2019	Railway applications - Recyclability and recoverability calculation method for rolling stock
				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
				EN 15273-3:2013 + A1:2016	Railway applications - Gauges - Part 3: Structure gauges

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 15551:2022	Railway applications - Railway rolling stock - Buffers
				EN 16839:2022	Railway applications - Rolling stock - Head stock layout
				EN 17460:2022	Railway applications - Adhesive bonding of rail vehicles and their components
				EN 17530:2022	Railway applications - Interior glazing for rail vehicles
				UIC 505-4:2007	Effects of the application of the kinematic gauges defined in the 505 series of leaflets on the positioning of structures in relation to the tracks and of the tracks in relation to each other
				UIC 505-5:2010	History, justification and commentaries on the elaboration and development of UIC leaflets of the series 505 and 506 on gauges
				UIC 506:2008	Rules governing application of the enlarged GA, GB, GB1, GB2, GC and GI3 gauges

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
				IRS 50505-1:2021	Railway transport stock - Rolling stock construction gauge
			鐵路車輛銲接 Welding of railway vehicles	CNS 16129-1 (EN 15085-1:2007+A1:2013)	鐵路應用－鐵路車輛及其零組件之銲接－第 1 部:通則
				CNS 16129-2 (EN 15085-2:2020)	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 (EN 15085-3:2022)	鐵路應用－鐵路車輛及其零組件之銲接－第 3 部:設計要求
				CNS 16129-4 (EN 15085-4:2007)	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 15085-5:2007)	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

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 3834-3:2005	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
				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
				EN 15085-6:2022	Railway applications - Welding of railway vehicles and components - Part 6: Maintenance welding 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
			車間通道 Gangway	EN 16116-1:2022	Railway applications - Design requirements for steps, handrails and associated access for staff - Part 1: Passenger vehicles, luggage vans and locomotives
				EN 16286-1:2013	Railway applications - Gangway systems between vehicles - Part 1: Main applications
				EN 16286-2:2013	Railway applications - Gangway systems between vehicles - Part 2: Acoustic measurements
			噪音/振動測試 Noise/ Vibration test	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 2631-1: 1997+A1:2010	Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 1: General requirements - Amendment 1
				ISO 2631-2:2003	Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 2:

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Vibration in buildings (1 Hz to 80 Hz)
				ISO 2631-4: 2001+A1:2010	Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 4: Guidelines for the evaluation of the effects of vibration and rotational motion on passenger and crew comfort in fixed- guideway transport systems - Amendment 1
				ISO 2631-5:2018	Mechanical vibration and shock - Evaluation of human exposure to whole-body vibration - Part 5: Method for evaluation of vibration containing multiple shocks
				ISO 3095:2013	Acoustics - Railway applications - Measurement of noise emitted by railbound vehicles
				ISO 3381:2021	Railway applications - Acoustics - Noise measurement inside railbound vehicles
				ISO 5349-1:2001	Mechanical vibration - Measurement and evaluation of

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					human exposure to 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 60268-1:1985+A1:1988	Sound system equipment. Part 1: General
				IEC 60268-16:2020	Sound system equipment - Part 16: Objective rating of speech intelligibility by speech transmission index

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 14253:2003+A1:2007	Mechanical vibration - Measurement and calculation of occupational exposure to 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

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 15892:2011	Railway applications - Noise Emission - Measurement of noise inside driver's cabs
				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 propagation - Test method for

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					determining the acoustic performance - Part 2: Intrinsic characteristics - Airborne sound insulation in the laboratory under diffuse sound field conditions
				EN 16272-3-1:2012	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
				EN 16272-4:2016	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 sound diffraction under direct sound field

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 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 16286-2:2013	Railway applications - Gangway systems between vehicles - Part 2: Acoustic measurements
				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 (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	CNS 16149 (EN 13749:2011)	鐵路應用－車輪組及轉向架－轉向架框結構之要求	懸吊零組件 Suspension components	ISO 22749-1:2021	Railway applications - Suspension components - Part 1: Characteristics and test methods for elastomer-mechanical 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
	EN 13260:2020	Railway applications - Wheelsets and bogies - Wheelsets - Product requirements		ISO 22749-2:2021	Railway applications - Suspension components - Part 2: Approval procedure and quality monitoring for elastomer-mechanical parts
	EN 13261:2020	Railway applications - Wheelsets and bogies - Axles - Product requirements		EN 13298:2003	Railway applications - Suspension components - Helical suspension springs, steel
	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 13802:2013	Railway applications - Suspension components - Hydraulic dampers

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 15827:2011	Railway applications - Requirements for bogies and running gears		EN 13913:2003	Railway applications - Rubber suspension components - Elastomer-based mechanical parts
	UIC 515-1:2003	Passenger Rolling Stock - Trailer Bogies - Running Gear - General Provisions Applicable To The Components Of Trailers Bogies		EN 14200:2004	Railway applications - Suspension components - Parabolic springs, steel
	UIC 515-4:1993	Passenger rolling stock trailer bogies - running gear bogie frame structure strength tests		EN 14817:2006	Railway applications - Suspension components - Air spring control elements
	UIC 515-5:1994	Powered And Trailing Stock - Bogies - Running Gear - Tests For Axle-Boxes		EN 15049:2007	Railway applications - Suspension components - Torsion bar, steel
	UIC 615-4:2003	Motive power units - Bogies and running gear – Bogie frame structure strength tests.			
			車輪組/軸箱 Wheel sets/ Axle boxes	EN 12080:2017	Railway applications - Axleboxes - Rolling bearings
				EN 12081:2017	Railway applications - Axleboxes - Lubricating greases

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 12082:2021	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 - Part 1: Forged and rolled wheels
				EN 14865-1:2009 + A1:2010	Railway applications - Axlebox lubricating greases - 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
					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 15302:2021	Railway applications - Method for determining the equivalent conicity
				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+A1:2022	Railway applications - Axlebox condition monitoring - Interface and design requirements - Part 1: Track side equipment and rolling stock axlebox
				EN 15437-2:2012+A1:2022	Railway applications - Axlebox condition monitoring - Interface

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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 gear in railway maintenance - Part 1: Wheelsets

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 814:1988	Technical Specification for The Official Testing And Supply Of Greases Intended for The Lubrication Of Railway Vehicle Roller Bearing Axle Boxes
			其他 Others	EN 15663:2017 + A1:2018	Railway applications - Vehicle reference masses
空調系統 Air conditioning system	CNS 16163-2 (EN 14750-2:2006)	鐵路應用-都會區與郊區鐵路車輛之空調-第 2 部：型式試驗	車輛空調 Vehicle air conditioning		
			駕駛室空調 Driving cabs air conditioning	CNS 16156-2 (EN 14813-2:2006 + A1:2010)	鐵路應用－駕駛室之空調－第 2 部：型式試驗
	ISO 19659-1:2017	Railway applications - Heating, ventilation and air conditioning systems for rolling stock - Part 1: Terms and definitions		EN 14813-1:2006 + A1:2010	Railway applications - Air conditioning for driving cabs - Part 1: Comfort parameters

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 19659-2:2020	Railway applications - Heating, ventilation and air conditioning systems for rolling stock - Part 2: Thermal comfort			
	ISO 19659-3:2022	Railway applications - Heating, ventilation and air conditioning systems for rolling stock - Part 3: Energy efficiency			
	EN 13129:2016	Railway applications - Air conditioning for main line rolling stock - Comfort parameters and type tests			
	EN 14750-1:2006	Railway applications - Air conditioning for urban and suburban rolling stock - Part 1: Comfort parameters			
煞車系統 Brake system	CNS 16155-1 (EN 13452-1:2003)	鐵路應用－煞車－大眾運輸煞車系統－第 1 部：性能要求	煞車類型 Brake type	CNS 15972 (UIC 541-3:2017)	鐵路車輛碟式煞車及其應用

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 16155-2 (EN 13452-2:2003)	鐵路應用－煞車－大眾運輸煞車系統－第 2 部：試驗法		EN 14535-1:2019	Railway applications - Brake discs for railway rolling stock - Part 1: Brake discs pressed or shrunk onto the axle or drive shaft, dimensions and quality requirements
	ISO 4975:2022	Railway applications - Braking system - Quality of compressed air for pneumatic apparatus and systems		EN 14535-2:2019	Railway applications - Brake discs for railway rolling stock - Part 2: Brake discs mounted onto the wheel, dimensions and quality requirements
	ISO 20138-1:2018	Railway applications - Calculation of braking performance (stopping, slowing and stationary braking) - Part 1: General algorithms utilizing mean value calculation			
	ISO 20138-2:2019	Railway applications - Calculation of braking performance (stopping, slowing and stationary braking) - Part 2: General		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

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		algorithms utilizing step by step calculation			
	EN 13452-1:2003	Railway applications - Braking - Mass transit brake systems - Part 1: Performance requirements		EN 16207:2014	Railway applications - Braking - Functional and performance criteria of Magnetic Track Brake systems for use in railway rolling stock
	EN 13452-2:2003	Railway applications - Braking - Mass transit brake systems - Part 2: Methods of test		UIC 540:2016	Brakes - Air Brakes for freight trains and passenger trains
	EN 14198:2016 + A1:2018	Railway applications - Braking - Requirements for the brake system of trains hauled by locomotives		UIC 541-06:2018	Brakes - Specifications for the construction of various brake components - Magnetic brakes
	EN 14478:2017	Railway applications - Braking - Generic vocabulary		UIC 541-5:2005	Brakes - Electropneumatic brake (ep brake) - Electropneumatic emergency brake override (EBO)
	EN 14531-1:2015 + A1:2018	Railway applications - Methods for calculation of stopping and slowing distances and immobilization braking -		UIC 541-6:2010	Brakes - Electropneumatic brake (ep brake) and Passenger alarm signal (PAS)

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 546:2014	Brakes - High power brakes for passenger trains
	EN 15179:2007	Railway applications - Braking - Requirements for the brake system of coaches		UIC 547:1989	Brakes - Air brake - Standard programme of tests
	EN 15734-1:2021	Railway applications - Braking systems of high speed trains - Part 1: Requirements and definitions			
	EN 15734-2:2021	Railway applications - Braking systems of high speed trains - Part 2: Test methods			

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 16185-1:2014+A1:2020	Railway applications - Braking systems of multiple unit trains - Part 1: Requirements and definitions	煞車零組件 Brake components	CNS 8489 (UIC 541-4:2010)	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 14601:2021	Railway applications - Straight and angled end cocks for brake pipe and main reservoir pipe
	EN 16834:2019	Railway applications - Braking - Brake performance		EN 15220:2016	Railway applications - Brake indicators
	EN 17065:2018	Railway applications - Braking - Passenger coach test procedure		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: 2020+A1:2022	Railway applications - Braking - Relay valves
				EN 15612:2008 + A1:2010	Railway applications - Braking - Brake pipe accelerator valve

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 15624:2021	Railway applications - Braking - Empty-loaded changeover devices
				EN 15625:2021	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 541-05:2016	Brakes - Specifications for the construction of various brake parts - Wheel Slide Protection device (WSP)
				UIC 541-07:1992	Brakes - Regulations governing the construction of different types of braking gear - Simple pressure

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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
				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 IRS 50548:2022	Brakes – Requirements of friction test benches for the international certification of brake pads and brake blocks
			煞車力傳送 Brake force transmission	EN 15624:2021	Railway applications - Braking - Empty-loaded changeover devices
				UIC 541-04:2014	Brakes - Regulations concerning the manufacture of brake components - Self-adjusting load-proportional braking system and automatic "empty-loaded" control device

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 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
列車控制與 管理系統 (TCMS) Train control and	CNS 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電 子設備	列車控制與 管理系統 (TCMS) Train control 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
management systems			management systems		
	CNS 61375-2-4 (IEC TS 61375-2-4:2017)	電子化鐵路設備－列車通訊網路(TCN)－第 2-4 部：TCN 應用規範			
	CNS 62236-3-1 (IEC 62236-3-1:2018) (EN 50121-3-1:2017-A1:2019)	鐵路應用-電磁相容-第 3-1 部：鐵路車輛-列車與整車			
	CNS 62236-3-2 (IEC 62236-3-2:2018) (EN 50121-3-2:2016)	鐵路應用-電磁相容-第 3-2 部：鐵路車輛-裝置			
	IEC 61375-2-3:2015 (EN 61375-2-3:2015 + A11:2017)	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 61375-2-6:2018 (EN IEC 61375-2-6 :2018)	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication			
	IEC 62236-4:2018 (EN 50121-4:2016+A1:2019)	Railway applications - Electromagnetic compatibility - Part 4: 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 - Part 2: Compatibility with track circuits			
	EN 50238-3:2019	Railway applications - Compatibility between rolling stock and train detection systems - Part 3: Compatibility with axle counters			
牽引系統 Traction system	CNS 61377 (IEC 61377:2016) (EN 61377:2016)	鐵路應用－鐵路車輛－牽引系統綜合試驗法	牽引電動機 Traction motor	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)
	IEC 60034-1:2017	Rotating electrical machines - Part 1: Rating and performance		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
	IEC 60850:2014 (EN 50163:2004+A3:2022)	Railway applications - Supply voltages of traction systems		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

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 62498-1:2010 (EN 50125-1:2014)	Railway applications - Environmental conditions for equipment - Part 1: Rolling stock and on-board equipment		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 器供電之永磁同步電機
				IEC 62520:2011 (EN 62520:2011)	Railway applications - Electric traction - Short-primary type linear induction motors (LIM) fed by power converters
	EN 50122-3:2022	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 3: Mutual Interaction of AC and DC traction systems	換流器/截波 器 Inverter/Cho- pper		
	EN 50388-1:2022	Railway Applications. Power supply and rolling stock. Technical criteria for the coordination between power supply (substation) and rolling stock to achieve interoperability			
輔助電力 Auxiliary power	CNS 60494 (IEC 60494-1 :2013/ EN 50206-1:2010 & IEC 60494-2:2013 /	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	車載供電 On-board power supply	CNS 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電子設 備

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 50206-2:2010)				
	IEC 60077-1:2017 (EN 60077-1:2017)	Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules		IEC 60077-4:2019 (EN 60077-4:2019)	Railway applications - Electric equipment for rolling stock - Part 4: Electrotechnical components - Rules for AC circuit-breakers
	IEC 60077-2:2017 (EN 60077-2:2017)	Railway applications - Electric equipment for rolling stock - Part 2: Electrotechnical components - General rules		IEC 60077-5:2019 (EN 60077-5:2019)	Railway applications - Electric equipment for rolling stock - Part 5: Electrotechnical components - Rules for HV fuses
	IEC 62485-1 :2015	Safety requirements for secondary batteries and battery installations- General safety information		IEC 62313:2009	Railway applications - Power supply and rolling stock - Technical criteria for the coordination between power supply (substation) and rolling stock
	IEC 62485-2 :2010	Safety requirements for secondary batteries and battery installations- Stationary batteries		IEC 62498-1:2010 (EN 50125-1:2014)	Railway applications - Environmental conditions for equipment - Part 1: Equipment on board rolling stock

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 62486:2017	Railway applications - Current collection systems - Technical criteria for the interaction between pantograph and overhead contactline (to achieve free access)		IEC 62846:2016 (EN 50317: 2012+A1:2022)	Railway applications- Current collection systems- Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line
	IEC 62499:2021 (EN 50405:2015)	Railway Applications - Current Collection Systems - Pantographs, Testing Methods For carbon contact Strips		EN 50318: 2018+A1:2022	Railway applications - Current collection systems - Validation of simulation of the dynamic interaction between pantograph and overhead contact line
	IEC 62973-4	Railway applications - Rolling stock - Batteries for auxiliary power supply systems - Part 4: Secondary sealed nickel-metal hydride batteries	車載儲能 On-board power storage	CNS 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電子設備
	EN 50274 :2002	Low voltage switchgear and control gear assemblies- Protection against electric shock-Protection against unintentional direct contact with hazardous live parts.		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

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 50343:2014+A1:2017	Railway applications- Rolling stock- Rules for installation of cabling		CNS 61881-3 (IEC 61881-3: 2012+A1:2013) (EN 61881-3: 2012+A1:2013)	鐵路應用－鐵路車輛設備－電 力電子之電容器－第 3 部：電 雙層電容器
	EN 50547:2013	Railway applications - Batteries for auxiliary power supply systems		CNS 62928 (EN IEC 62928:2018)	鐵路應用－鐵路車輛－車載鋰 離子牽引電池
				IEC 60068-2-14:2009 (EN 60068-2-14:2009)	Environmental testing -Part 2-14: Tests - Test N: Change of temperature
				IEC 60068-2-27:2008 (EN 60068-2-27:2009)	Basic environmental testing procedures – Part 2: Tests – Test Ea and guidance: Shock
				IEC 60068-2-78:2012 (EN 60068-2-78:2013)	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

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 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 62391-1:2015 (EN 62391-1:2016)	Fixed electric double-layer capacitors for use in electric and electronic equipment - Part 1: Generic specification
				IEC 62391-2:2006 (EN 62391-2:2006)	Fixed electric double-layer capacitors for use in electronic equipment - Part 2: Sectional specification - Electric double-layer capacitors for power application

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 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
				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 62864-1:2016 (EN 62864-1:2016)	Railway applications - Rolling stock - Power supply with onboard energy storage system - Part 1: Series hybrid 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
			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 60077-3:2019)	Railway applications - Electric equipment for rolling stock - Part 3: Electrotechnical components - Rules for d.c. circuit-breakers
				IEC 60077-4:2019 (EN 60077-4:2019)	Railway applications - Electric equipment for rolling stock - Part 4: Electrotechnical components - Rules for AC circuit-breakers
				IEC 60077-5:2019 (EN 60077-5:2019)	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
				EN 50546:2021	Railway applications - Rolling Stock - Three-phase shore (external) supply system for rail vehicles and its connectors

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
			轉換器 Converter	IEC 61287-1:2014 (EN 61287-1:2014)	Railway applications - Power converters installed on board rolling stock - Part 1: Characteristics and test methods
			變壓器 Transformer	IEC 60310:2016 (EN 60310:2016)	Railway applications - Traction transformers and inductors on board rolling Stock
			電氣安全防護 Electrical safety protection	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 (ISO 140-3:1995)	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 (ISO 12567-1:2010)	門窗熱性能－熱傳透性熱箱測定法－第 1 部:完整門窗
				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

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 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電子設備
				CNS 16150 (EN 14752:2021)	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
				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

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 22752:2021	Railway applications - Bodyside windows for rolling stock
				IEC 60077-1:2017 (EN 60077-1:2017)	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
				IEC 62498-1:2010 (EN 50125-1:2014)	Railway applications - Environmental conditions for equipment - Part 1: Rolling stock and on-board equipment

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 14067-1:2003	Railway applications - Aerodynamics - Part 1: Symbols and units
				EN 14067-3:2003	Railway applications - Aerodynamics - Part 3: Aerodynamics in tunnels
				EN 14067-4:2013+ A1:2018	Railway applications - Aerodynamics - Part 4:Requirements and test procedures for aerodynamics on open track
				EN 14067-5: 2021+ AC:2023	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 50153:2014	Railway applications - Rolling stock - Protective provisions relating to electrical hazards

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
連結器 Coupler	EN 15020:2006 + A1:2010	Railway applications - Rescue coupler - Performance requirements, specific interface geometry and test methods	連結器 Coupler		
	EN 15566:2022	Railway applications - Railway rolling stock - Draw gear and screw coupling			
	EN 15807:2021	Railway applications - Pneumatic half couplings			
	EN 16019:2014	Railway applications - Automatic coupler - Performance requirements, specific interface geometry and test method			
鐵路車輛 防火 Fire protection on	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

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 vehicles				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			
	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			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		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 installations			
其他/設計/性能 Others/ Design/ Performance	CNS 15768 (IEC 61133:2016) (EN IEC 61133:2021)	軌道車輛組裝完成及運轉前之整車測試	電磁相容 Electromagnetic compatibility	CNS 62236-3-1 (IEC 62236-3-1:2018) (EN 50121-3-1:2017-A1:2019)	鐵路應用-電磁相容-第 3-1 部：鐵路車輛-列車與整車
	ISO 281:2007	Rolling bearings - Dynamic load ratings and rating life		CNS 62236-3-2 (IEC 62236-3-2:2018) (EN 50121-3-2:2016)	鐵路應用-電磁相容-第 3-2 部：鐵路車輛-裝置
	EN 12299:2009	Railway applications - Ride comfort for passengers - Measurement and evaluation		IEC 62236-2:2018 (EN 50121-2: 2017)	Railway applications - Electromagnetic compatibility - Part 2: Emission of the whole

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 system to the outside world
	EN 15380-4:2013	Railway applications - Classification system for railway vehicles - Part 4: Function groups		EN 55016-2-3:2019	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements
	EN 15380-5:2014	Railway applications - Classification system for railway vehicles - Part 5: System Breakdown Structure (SBS)	油罐車 Tank wagons	EN 12561-1:2011	Railway applications - Tank wagons - Part 1: Identification plates for tank wagons for the carriage of dangerous goods
	EN 15528:2021	Railway applications - Line categories for managing the interface between load limits of vehicles and infrastructure		EN 12561-2:2011	Railway applications - Tank wagons - Part 2: Bottom emptying devices for liquid products including vapour return
	EN 15723:2010	Railway applications - Closing and locking devices for payload protecting devices against environmental influences -		EN 12561-3:2011 + AC:2014	Railway applications - Tank wagons - Part 3: Bottom filling and emptying devices for gases liquefied under pressure

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 for durability, operation, indication, maintenance, recycling			
	EN 16362:2013	Railway applications - Ground based services - Water restocking equipment		EN 12561-4:2011	Railway applications - Tank wagons - Part 4: Devices for top filling and emptying of liquid products
	EN 16404:2016	Railway applications - Re-railing and recovery requirements for railway vehicles		EN 12561-5:2011	Railway applications - Tank wagons - Part 5: Devices for vapour return while filling or emptying of liquid products
	EN 50463-1:2017	Railway applications - Energy measurement on board trains - Part 1: General		EN 12561-6:2011	Railway applications - Tank wagons - Part 6: Manholes
	EN 50463-2:2017	Railway applications - Energy measurement on board trains - Part 2: Energy measuring		EN 12561-7:2011	Railway applications - Tank wagons - Part 7: Platforms and ladders
	EN 50463-3:2017	Railway applications - Energy measurement on board trains - Part 3: Data handling		EN 12561-8:2011	Railway applications - Tank wagons - Part 8: Heating connections

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 50463-4:2017	Railway applications - Energy measurement on board trains - Part 4: Communication	貨車 Freight wagons	EN 12663-2:2010	Railway applications - Structural requirements of railway vehicle bodies - Part 2: Freight wagons
	EN 50463-5:2017	Railway applications - Energy measurement on board trains - Part 5: Conformity assessment		EN 13775-1:2003	Railway applications - Measuring of new and modified freight wagons - Part 1: Measuring principles
	EN 50591:2019	Railway Applications - Rolling Stock - Specification and verification of energy consumption		EN 13775-2:2003	Railway applications - Measuring of new and modified freight wagons - Part 2: Freight wagons with bogies
	EN 50657:2017	Railways Applications. Rolling stock applications. Software on Board Rolling Stock		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

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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
				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 compressive forces
				EN 15877-1:2012 + A1:2018	Railway applications - Marking on railway vehicles - Part 1: Freight wagons
				EN 16116-2:2021	Railway applications - Design requirements for steps, handrails and associated access for staff - Part 2: Freight wagons

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 16860:2019	Railway applications - Requirements and general principles for securing payload in rail freight transport
			其他 Others	CNS 14678 (UIC 564-1:1979 OR)	客車廂之玻璃窗
				CNS 14829 (UIC 822:2003)	軌道車輛用壓縮螺旋彈簧
				EN 15152:2019	Railway applications - Windscreens for trains

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 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 machines16185-1
				EN 16241:2014 + A1:2016	Railway applications - Slack adjuster
				EN 16507:2014	Railway applications - Ground based service - Diesel refuelling equipment
				EN 16922: 2017+A1:2019	Railway applications - Ground based services - Vehicle waste water discharge equipment
				EN 17023:2018	Railway applications - Railway vehicle maintenance - Creation

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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 17824:2023	Railway applications - Ground based services - Exhaust treatment fluid (AUS 32) refilling equipment
				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 62110:2009	Electric and magnetic field levels generated by AC power systems - Measurement procedures with regard to public exposure

■ 供電系統

表 3-2 我國鐵道類標準整體架構-供電系統列表

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	設備/元件 Facilities and components	IEC 62128-1:2013	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock
	IEC 62498-2:2010 (EN 50125-2:2002)	Railway applications - Environmental conditions for equipment - Part 2: Fixed electrical installations		IEC 62505-3-1:2020 (EN 50152-3-1:2017)	Railway applications - Fixed installations - Particular requirements for a.c. switchgear - Part 3-1: Measurement, control and protection devices for specific use in a.c. traction systems - Devices
	EN 50122-1:2022	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
	EN 50367:2020+A1:2022	Railway applications- Fixed installations and rolling stock- Criteria to achieve technical compatibility between			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		pantographs and overhead contact line			
				IEC 63076:2019 (EN 50502:2015)	Railway applications - Rolling stock - Electric equipment in trolley buses - Safety requirements and current collection systems
				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+ A1:2022	Railway applications - Current collection systems - Requirements for and validation of measurements of the dynamic interaction between pantograph and overhead contact line
				EN 50318: 2018+ A1:2022	Railway applications - Current collection systems - Validation of simulation of the dynamic

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					interaction between pantograph and overhead contact line
				EN 50345:2009	Railway applications - Fixed installations - Electric traction - Insulating synthetic rope assemblies for support of overhead contact lines
				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
				EN 50562:2018	Railway applications - Fixed installations - Process, protective measures and demonstration of safety for electric traction systems
				EN 50633:2016	Railway applications - Fixed installations - Protection principles for AC and DC electric traction systems
				EN 62924:2017	Railway applications - Fixed installations - Stationary energy

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					storage system for DC traction systems
變電站 Substation	IEC 61936-1:2021 CMV	Power installations exceeding 1 kV AC and 1,5 kV DC - Part 1: AC	開關設備 Switchgear	IEC TR 60890:2014	A method of temperature-rise verification of low-voltage switchgear and controlgear assemblies by calculation
				IEC 60947-1:2020	Low-voltage switchgear and controlgear - Part 1: General rules
	IEC 62271-103:2021	High-voltage switchgear and controlgear - Part 103: Alternating current switches for rated voltages above 1 kV up to and including 52 kV		IEC 60947-2:2016+ AMD1:2019	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers
	IEC 62505-3-2:2020 (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		IEC 60947-3:2020+ COR1:2021	Corrigendum 1 - Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units
	IEC 62505-3-3:2020 (EN 50152-3-3:2016)	Railway applications - Fixed installations - Particular requirements for a.c.		IEC 61439-1 :2020 (EN 61439-1:2021)	Low voltage switchgear and control gear assemblies- General rules

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 3-3: Measurement, control and protection devices for specific use in a.c. traction systems - Voltage transformers			
	IEEE 80:2013	IEEE Guide for Safety in AC Substation Grounding		IEC 62271-1:2017	High-voltage switchgear and controlgear - Part 1: Common specifications for alternating current switchgear and controlgear
	IEEE 519:2014	Recommended Practice and Requirements for Harmonic Control in Electric Power Systems		IEC 62271-3:2015	High-voltage switchgear and controlgear - Part 3: Digital interfaces based on IEC 61850
				IEC 62271-4:2013	High-voltage switchgear and controlgear - Part 4: Handling procedures for sulphur hexafluoride (SF ₆) and its mixtures
				IEC/IEEE 62271-37- 013:2015	High-voltage switchgear and controlgear - Part 37-013: Alternating current generator circuit-breakers
				IEC/IEEE 62271-37- 082:2012	High-voltage switchgear and controlgear - Part 37-082:

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					Standard practice for the measurement of sound pressure levels on alternating current circuit-breakers
				IEC 62271-100:2021	High-voltage switchgear and controlgear - Part 100: Alternating-current circuit-breakers
				IEC 62271-101:2021	High-voltage switchgear and controlgear - Part 101: Synthetic testing
				IEC 62271-102:2018	High-voltage switchgear and controlgear - Part 102: Alternating current disconnectors and earthing switches
				IEC 62271-104:2020	High-voltage switchgear and controlgear - Part 104: Alternating current switches for rated voltages higher than 52 kV
				IEC 62271-105:2021	High-voltage switchgear and controlgear - Part 105: Alternating current switch-fuse combinations for rated voltages above 1 kV up to and including 52 kV

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 62271-106:2021	High-voltage switchgear and controlgear - Part 106: Alternating current contactors, contactor-based controllers and motor-starters
				IEC 62271-107:2019	High-voltage switchgear and controlgear - Part 107: Alternating current fused circuit-switchers for rated voltages above 1 kV up to and including 52 kV
				IEC 62271-108:2020	High-voltage switchgear and controlgear - Part 108: High-voltage alternating current disconnecting circuit-breakers for rated voltages above 52 kV
				IEC 62271-109:2019	High-voltage switchgear and controlgear - Part 109: Alternating-current series capacitor by-pass switches
				IEC 62271-110:2017	High-voltage switchgear and controlgear - Part 110: Inductive load switching
				IEC 62271-111:2019	High-voltage switchgear and controlgear - Part 111: Automatic

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					circuit reclosers for alternating current systems up to and including 38 kV
				IEC 62271-112:2021	High-voltage switchgear and controlgear - Part 112: Alternating current high-speed earthing switches for secondary arc extinction on transmission lines
				IEC 62271-200:2021	High-voltage switchgear and controlgear - Part 200: AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
				IEC 62271-201:2014	High-voltage switchgear and controlgear - Part 201: AC solid-insulation enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
				IEC 62271-202:2014	High-voltage switchgear and controlgear - Part 202: High-voltage/ low-voltage prefabricated substation

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 62271-203:2011	High-voltage switchgear and controlgear - Part 203: Gas-insulated metal-enclosed switchgear for rated voltages above 52 kV
				IEC 62271-204:2011	High-voltage switchgear and controlgear - Part 204: Rigid gas-insulated transmission lines for rated voltage above 52 kV
				IEC 62271-205:2008	High-voltage switchgear and controlgear - Part 205: Compact switchgear assemblies for rated voltages above 52 kV
				IEC 62271-207:2012	High-voltage switchgear and controlgear - Part 207: Seismic qualification for gas-insulated switchgear assemblies for rated voltages above 52 kV
				IEC 62271-209:2019	High-voltage switchgear and controlgear - Part 209: Cable connections for gas-insulated metal-enclosed switchgear for rated voltages above 52 kV - Fluid-filled and extruded

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					insulation cables - Fluid-filled and dry-type cable-terminations
				IEC 62271-211:2014	High-voltage switchgear and controlgear - Part 211: Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages above 52 kV
				IEC 62271-212:2016	High-voltage switchgear and controlgear - Part 212: Compact Equipment Assembly for Distribution Substation (CEADS)
				IEC 62271-213:2021	High-voltage switchgear and controlgear - Part 213: Voltage detecting and indicating system
				IEC 62271-214:2019	High-voltage switchgear and controlgear - Part 214: Internal arc classification for metal-enclosed pole-mounted switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
				IEC 62271-215:2021	High-voltage switchgear and controlgear - Part 215: Phase

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					comparator used with VDIS
				IEC 62505-3-1:2020 EN 50152-3-1:2017	Railway applications - Fixed installations - Particular requirements for a.c. switchgear - Part 3-1: Measurement, control and protection devices for specific use in a.c. traction systems - Devices
				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,

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					switch-disconnectors and earthing switches
				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 -

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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 (EN 50329:2003)	Railway applications - Fixed installations - Traction transformers
				IEEE C57.12.00-2015	Standard For General Requirements For Liquid-Immersed Distribution, Power, And Regulating 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
				IEEE C57.12.01-2020	Standard For General Requirements For Dry-Type Distribution And Power Transformers
				IEEE C57.12.10-2017	Standard Requirements For Liquid-Immersed Power Transformers
				IEEE C57.12.20-2017	Standard For Overhead-Type Distribution Transformers 500 KVA And Smaller; High Voltage, 34 500 V And Below; Low Voltage, 7970/13 800Y V And Below
				IEEE C57.12.23-2018	Standard For Submersible Single-Phase Transformers:250 KVA And Smaller; High Voltage 34 500 GrdY/19 920 V And Below; Low Voltage 600 V And Below
				IEEE C57.12.24-2016	Standard For Submersible, Three-Phase Transformers, 3750 KVA And Smaller: High Voltage, 34 500 GrdY/19 920 Volts And Below, Low Voltage, 600 Volts And Below

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 C57.12.28-2014	Standard For Pad-Mounted Equipment--Enclosure Integrity
				IEEE C57.12.29-2014	Standard For Pad-Mounted Equipment--Enclosure Integrity For Coastal Environments
				IEEE C57.12.30-2020	Standard For Pole-Mounted Equipment--Enclosure Integrity For Coastal Environments
				IEEE C57.12.31-2020	Standard For Pole-Mounted Equipment--Enclosure Integrity
				IEEE C57.12.32-2019	Standard For Submersible Equipment--Enclosure Integrity
				IEEE C57.12.34-2015	Standard Requirements For Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers, 10 MVA And Smaller, High-Voltage, 34.5 KV Nominal System Voltage And Below, Low-Voltage, 15 KV Nominal System Voltage And Below
				IEEE C57.12.35-2013	Standard Bar Coding For Distribution Transformers And Step-Voltage Regulators

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 C57.12.36-2017	Standard Requirements For Liquid-Immersed Distribution Substation Transformers
				IEEE C57.12.37-2015	Standard For The Electronic Reporting Of Distribution Transformer Test Data
				IEEE C57.12.38-2014	Standard For Pad-Mounted-Type, Self-Cooled, Single-Phase Distribution Transformers 250 KVA And Smaller: High Voltage, 34 500 GrdY/19 920 V And Below, Low Voltage, 480/240 V And Below
				IEEE C57.12.39-2017	Standard For Requirements For Distribution Transformer Tank Pressure Coordination
				IEEE C57.12.40-2017	Standard For Network, Three-Phase Transformers, 2500 KVA And Smaller, High Voltage, 34 500 V And Below, Low Voltage, 600 V And Below, Subway And Vault Types (Liquid Immersed)
				IEEE C57.12.44-2014	Standard Requirements For Secondary Network Protectors

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 C57.12.51-2019	Guide For Mechanical Interchangeability Of Ventilated Dry-Type Transformers
				IEEE C57.12.52-2012	Standard For Sealed Dry-Type Power Transformers, 501 KVA And Higher, Three-Phase, With High-Voltage 601 To 34500 Volts, Low-Voltage 208Y/120 To 4160 VoltsGeneral Requirements
				IEEE C57.12.58-2017	Guide For Conducting A Transient Voltage Analysis Of A Dry-Type Transformer Coil
				IEEE C57.12.59-2015	Guide For Dry-Type Transformer Through-Fault Current Duration
				IEEE C57.12.60-2020	Standard For Thermal Evaluation Of Insulation Systems For Dry-Type Power And Distribution Transformers
				IEEE C57.12.70-2020	Standard For Standard Terminal Markings And Connections For Distribution And Power 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
				IEEE C57.12.90-2015	Standard Test Code For Liquid-Immersed Distribution, Power, And Regulating Transformers
				IEEE C57.12.91-2020	Standard Test Code For Dry-Type Distribution And Power Transformers
				IEEE C57.13-2016	Requirements for Instrument Transformers
			變比器 (PT/CT) Instrument transformer (PT/CT)	IEC 60076-1:2011	Power transformers - Part 1: General
				IEC 60076-2:2011	Power transformers - Part 2: Temperature rise for liquid-immersed transformers
				IEC 60076-3:2013+AMD1:2018	Power transformers - Part 3: Insulation levels, dielectric tests and external clearances in air
				IEC 60076-4:2002	Power transformers - Part 4: Guide to the lightning impulse and switching impulse testing - Power transformers and reactors
				IEC 60076-5:2006	Power transformers - Part 5: Ability to withstand short circuit
				IEC 60076-6:2007	Power transformers - Part 6: Reactors

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 60076-7:2018	Power transformers - Part 7: Loading guide for mineral-oil-immersed power transformers
				IEC 60076-8:1997	Power transformers - Part 8: Application guide
				IEC 60076-10:2016	Power transformers - Part 10: Determination of sound levels
				IEC 60076-10-1:2016+ AMD1:2020	Power transformers - Part 10-1: Determination of sound levels - Application guide
				IEC 60076-11:2018	Power transformers - Part 11: Dry-type transformers
				IEC 60076-12:2008	Power transformers - Part 12: Loading guide for dry-type power transformers
				IEC 60076-13:2006	Power transformers - Part 13: Self-protected liquid-filled transformers
				IEC 60076-14:2013	Power transformers - Part 14: Liquid-immersed power transformers using high-temperature insulation materials
				IEC 60076-15:2015	Power transformers - Part 15: Gas-filled power 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
				IEC 60076-18:2012	Power transformers - Part 18: Measurement of frequency response
				IEC 60076-21:2018	Power transformers - Part 21: Standard requirements, terminology, and test code for step-voltage regulators
				IEC 60076-22-1:2019	Power transformers - Part 22-1: Power transformer and reactor fittings - Protective devices
				IEC 60076-22-2:2019	Power transformers - Part 22-2: Power transformer and reactor fittings - Removable radiators
				IEC 60076-22-3:2019	Power transformers - Part 22-3: Power transformer and reactor fittings - Insulating liquid to air heat exchangers
				IEC 60076-22-4:2019	Power transformers - Part 22-4: Power transformer and reactor fittings - Insulating liquid to water heat exchangers
				IEC 60076-22-5:2021	Power transformers - Part 22-5: Power transformer and reactor

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					fittings - Electric pumps for transformers
				IEC 60076-22-6:2021	Power transformers - Part 22-6: Power transformer and reactor fittings - Electric fans for transformers
				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 requirements
				IEC 60146-1-2:2019	Semiconductor converters - General requirements and line commutated converters - Part 1-2: Application guidelines

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 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 62590-3-1:2022	Railway applications - Fixed installations - Electronic power converters - Part 3-1: AC traction applications - Electronic power compensators
				EN 50327:2003	Railway applications - Fixed installations - Harmonisation of the rated values for converter groups and tests on converter groups
電力品質 Power quality			雜散電流 Stray current	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

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 50122-2:2022	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
				EN 50162:2004	Protection against corrosion by stray current from direct current systems
			突波 Surge	IEC 60099-4:2014	Surge arresters - Part 4: Metal-oxide surge arresters without gaps for a.c. systems
				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
				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

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					and voltage limiting devices - Part 2: Voltage limiting devices
絕緣防護 Insulation and protection	IEC 60204-1:2016	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	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
	IEC 62497-2:2010	Railway applications. Insulation coordination. Part 2: Overvoltages and related protection		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
			防護 Protection	CNS 14165 (IEC 60529:2013)	電器外殼保護分類等級(IP 碼)
第三軌 Third rail			第三軌 Third rail		
電纜 Cable	IEC 60331-1:2018	Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0.6/1.0 kV	電纜 Cable	IEC 60228:2004	Conductors of insulated 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
		and with an overall diameter exceeding 20 mm			
	IEC 60332-3-10:2018	Tests on electric and optical fibre cables under fire conditions - Part 3-10: Test for vertical flame spread of vertically-mounted bunched wires or cables - Apparatus		IEC 60332-1-1:2004+AMD1:2015	Tests on electric and optical fibre cables under fire conditions - Part 1-1: Test for vertical flame propagation for a single insulated wire or cable - Apparatus
	IEC 60332-3-21:2018	Tests on electric and optical fibre cables under fire conditions - Part 3-21: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category A F/R		IEC 60332-1-2:2004+AMD1:2015	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame
	IEC 60332-3-22:2018	Tests on electric and optical fibre cables under fire conditions - Part 3-22: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category A		IEC 60332-1-3:2004+AMD1:2015	Tests on electric and optical fibre cables under fire conditions - Part 1-3: Test for vertical flame propagation for a single insulated wire or cable - Procedure for determination of flaming droplets/particles
	IEC 60332-3-23:2018	Tests on electric and optical fibre cables under fire		IEC 60332-2-1:2004	Tests on electric and optical fibre cables under fire conditions - Part

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		conditions - Part 3-23: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category B			2-1: Test for vertical flame propagation for a single small insulated wire or cable - Apparatus
	IEC 60332-3-24:2018	Tests on electric and optical fibre cables under fire conditions - Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C		IEC 60332-2-2:2004	Tests on electric and optical fibre cables under fire conditions - Part 2-2: Test for vertical flame propagation for a single small insulated wire or cable - Procedure for diffusion flame
	IEC 60332-3-25:2018	Tests on electric and optical fibre cables under fire conditions - Part 3-25: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category D		IEC 60502-1:2021	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) - Part 1: Cables for rated voltages of 1 kV (Um = 1.2 kV) and 3 kV (Um = 3.6 kV)
				IEC 60502-2:2014	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) – Part 2: Cables for rated voltages from 6 kV (Um = 7.2 kV) up to 30 kV (Um = 36 kV)

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 60502-4:2010	Power cables with extruded insulation and their accessories for rated voltages from 1 kV ($U_m = 1.2$ kV) up to 30 kV ($U_m = 36$ kV) - Part 4: Test requirements on accessories for cables with rated voltages from 6 kV ($U_m = 7.2$ kV) up to 30 kV ($U_m = 36$ kV)
				IEC 60840:2011	Power cables with extruded insulation and their accessories for rated voltages above 30 kV ($U_m = 36$ kV) up to 150 kV ($U_m = 170$ 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. Part 2: Cyclic rating of cables greater than 18/30 (36) kV

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					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 applications. Railway rolling stock power and control cables having special fire performance - General requirements
				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

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 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 fire performance - Thin wall - Part 1: General requirements
				EN 50306-2:2002	Railway applications - Railway rolling stock cables having special

1 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 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. Part 1: General requirements
				EN 50382-2:2008+ A1:2013	Railway applications. Railway rolling stock high temperature power cables having special fire

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
					performance. Part 2: Single core silicone rubber insulated cables for 120 °C or 150 °C
遠端控制系統 Telecontrol system	IEC TR 60870-1-1:1988	Telecontrol equipment and systems. Part 1: General considerations. Section One: General principles	遠端控制設備 Telecontrol equipment	IEC 60870-2-1:1995	Telecontrol equipment and systems - Part 2: Operating conditions - Section 1: Power supply and electromagnetic compatibility
				IEC 60870-3:1989	Telecontrol equipment and systems. Part 3: Interfaces (electrical characteristics)
				IEC 60870-4:1990	Telecontrol equipment and systems. Part 4: Performance requirements
				IEC 60870-5:2022 Series	Telecontrol equipment and systems - Part 5: Transmission protocols - ALL PARTS
其他 Others			其他 Others		

■ 號誌與通訊系統

表 3-3 我國鐵道類標準整體架構-號誌系統列表

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	CNS 62280 (IEC 62280:2014) (EN 50159:2010+A1:2020)	鐵路應用－通訊、號誌及處理系統－傳輸系統之安全相關通訊	車載號誌設備 Carborne signalling equipment	CNS 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電子設備
	IEC 62236-1:2018 (EN 50121-1:2017)	Railway applications - Electromagnetic compatibility - Part 1: General		CNS 61375-2-4 (IEC TS 61375-2-4:2017)	電子化鐵路設備－列車通訊網路(TCN)－第 2-4 部：TCN 應用規範
	IEC 62236-2:2018 (EN 50121-2:2017)	Railway applications - Electromagnetic compatibility - Part 2: Emission of the whole railway system to the outside world		CNS 62498-3 (IEC 62498-3:2010) (EN 50125-3:2003)	鐵路應用－設備之環境條件－第 3 部：號誌及電訊設備
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		IEC 61375-2-8:2021 (EN IEC 61375-2-8:2021)	Electronic railway equipment - Train communication network (TCN) - Part 2-8: TCN conformance test

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
	IEC 62290-1:2014 (EN 62290-1:2014)	Railway applications - Urban guided transport management and command/control systems - Part 1: System principles and fundamental concepts		IEC 62236-4:2018 (EN 50121-4:2016+A1:2019)	Railway applications. Electromagnetic compatibility. Emission and immunity of the signalling and telecommunications apparatus
	IEC 62290-2:2014(EN 62290-2:2014)	Railway applications - Urban guided transport management and command/control systems - Part 2: Functional requirements specification		IEC 62236-5:2018 (EN 50121-5:2017+A1:2019)	Emission and immunity of fixed power supply installations and apparatus.
	IEC 62290-3:2019+COR 1:2020(EN IEC 62290-3:2019)	Railway applications - Urban guided transport management and command/control systems - Part 3: System requirements specification		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
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		IEC 62497-2:2010 (EN 50124-2:2017)	Railway applications - Insulation coordination - Part 2: Overvoltages and related protection
	EN 50668:2019	Railway applications - Signalling and control systems for non UGTMS Urban Rail systems		IEC 62580-1:2015	Electronic railway equipment - On-board multimedia and telematic subsystems for railways - Part 1: General architecture

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 1474.1-2004	IEEE Standard for Communications-Based Train Control (CBTC) Performance and Functional Requirements		IEC 62625-1:2013	Electronic railway equipment - On board driving data recording system - Part 1: System specification
	IEEE 1474.2-2003	IEEE Standard for User Interface Requirements in Communications-Based Train Control (CBTC) Systems		IEC 62625-2:2016	Electronic railway equipment - On board driving data recording system - Part 2: Conformity testing
	IEEE 1474.3-2008	IEEE Recommended Practice for Communications-Based Train Control (CBTC) System Design and Functional Allocations			
	IEEE 1474.4-2011	IEEE Recommended Practice for Functional Testing of a Communications-Based Train Control (CBTC) System			
			道旁設備 Wayside equipment	CNS 14546	發光二極體交通號誌燈燈面及燈箱
				CNS 16134 (IEC 60571:2012) (EN 50155:2021)	鐵路應用－鐵路車輛－電子設備

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
				CNS 62498-3 (IEC 62498-3:2010) (EN 50125-3:2003)	鐵路應用－設備之環境條件－第 3 部： 號誌及電訊設備
				CNS 62912 (IEC 62912:2015)	鐵路應用- N 型及 C 型直流號誌單穩 態繼電器
				IEC 62912-2:2019	Railway applications - Direct current signalling monostable relays - Part 2: Spring type relays
			列車偵測設備 Train detection device	CNS 16164-1 (IEC 62427:2007) (EN 50238-1:2019)	鐵路應用-鐵路車輛與列車偵測系統間 相容性-第 1 部：通則
				IEC 62236-4:2018 (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
				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

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 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	CNS 62280 (IEC 62280:2014) (EN 50159:2010+A1:2020)	鐵路應用－通訊、號誌及處理系統－傳輸系統之安全相關通訊	繼電器 Relay	CNS 62912 (IEC 62912:2015)	鐵路應用-N 型及 C 型直流號誌單穩態繼電器
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		IEC 60255-1:2009	Measuring relays and protection equipment - Part 1: Common requirements
	IEC 62290-1:2014 (EN 62290-1:2014)	Railway applications - Urban guided transport management and command/control systems - Part 1: System principles and fundamental concepts		IEC 60255-121:2014	Measuring relays and protection equipment - Part 121: Functional requirements for distance protection
				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
	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+COR 1:2020(EN 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
				EN 50592:2016	Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters
			電子聯鎖系統		

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
			Electronic interlocking system		
道旁號誌設備 Sideway signalling equipment	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems	轉轍器 Switch	CNS 16133 (BS EN 13232-4:2005+A1:2011)	鐵路應用－軌道－尖軌及岔心－第 4 部:致動、鎖定及轍查
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		CNS 62498-3 (IEC 62498-3:2010) (EN 50125-3:2003)	鐵路應用－設備之環境條件－第 3 部:號誌及電訊設備
				IEC 62236-4:2018 (EN 50121-2:2017)	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.
				EN 15689:2009	Railway applications. Track. Switches and crossings. Crossing components made of cast austenitic manganese steel

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 50124-1:2017	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		
			計軸器 Axle counter	EN 50592:2016	Railway applications - Testing of rolling stock for electromagnetic compatibility with axle counters
				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 62236-5:2018 (EN 50121-5:2017)	Railway applications - Electromagnetic compatibility - Part 5: Emission and immunity of fixed power supply installations and apparatus
車地通訊 Vehicle-to-ground communication	IEC 61375-2-6:2018 (EN 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		

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
	IEC 62279:2015 (EN 50128: 2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems			
	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	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			

表 3-4 我國鐵道類標準整體架構-通訊系統列表

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
列車、道旁通訊與設備 Train、 wayside communication network and equipment	ISO/IEC/ IEEE 8802-3: 2021	Telecommunications and exchange between information technology systems - Requirements for local and metropolitan area networks - Part 3: Standard for Ethernet	列車通訊網路 TCN, Train communication network	CNS 61375-2-4 (IEC TS 61375-2- 4:2017)	電子化鐵路設備－列車通訊網路(TCN) －第 2-4 部：TCN 應用規範
	IEC 62279:2015 (EN 50128: 2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems		IEC 61375-1:2012 (EN 61375-1:2012)	Electronic railway equipment - Train communication network (TCN) - Part 1: General architecture
	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling		IEC 61375-2-1:2012 (EN 61375-2-1:2012)	Electronic railway equipment - Train communication network (TCN) - Part 2- 1: Wire Train Bus (WTB)
	IEEE 802.11- 2020	Telecommunications and Information Exchange between Systems - Local and Metropolitan Area Networks--Specific Requirements - Part 11: Wireless LAN Medium Access Control		IEC 61375-2-2:2012 (EN 61375-2-2:2012)	Electronic railway equipment - Train communication network (TCN) - Part 2- 2: Wire Train Bus conformance testing

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
		(MAC) and Physical Layer (PHY) Specifications			
	EN 16683: 2015	Railway applications - Call for aid and communication device - Requirements		IEC 61375-2-3:2015 (EN 61375-2-3:2015 + A11:2017)	Electronic railway equipment - Train communication network (TCN) - Part 2-3: TCN communication profile
				IEC 61375-2-5:2015 (EN 61375-2-5:2015)	Electronic railway equipment - Train communication network (TCN) - Part 2-5: Ethernet train backbone
				IEC 61375-2-6:2018 (EN IEC 61375-2-6:2018)	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication
				IEC 61375-2-8:2021 (EN IEC 61375-2-8:2021)	Electronic railway equipment - Train communication network (TCN) - Part 2-8: TCN conformance test
				IEC 61375-3-1:2012 (EN 61375-3-1:2012)	Electronic railway equipment - Train communication network (TCN) - Part 3-1: Multifunction Vehicle Bus (MVB)
				IEC 61375-3-2:2012 (EN 61375-3-2:2012)	Electronic railway equipment - Train communication network (TCN) - Part 3-2: MVB (Multifunction Vehicle Bus) conformance testing

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 61375-3-3:2012 (EN 61375-3-3:2012)	Electronic railway equipment - Train communication network (TCN) - Part 3-3: CANopen Consist Network (CCN)
				IEC 61375-3-4:2014 (EN 61375-3-4:2014+A11:2017)	Electronic railway equipment - Train communication network (TCN) - Part 3-4: Ethernet Consist Network (ECN)
			無線電頻譜 Radio spectrum	EN 303396:2016	Short Range Devices; Measurement Techniques for Automotive and Surveillance Radar Equipment
				EN 301091-1:2017	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 1: Ground based vehicular radar
				EN 301091-2:2017	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

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 301091-3:2017	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
			電磁相容 EMC, Electromagnet- ic compatibility	EN 301489-12:2020	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) 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
				EN 301489-51:2020	ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 51: Specific conditions for Automotive, Ground based Vehicles and

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
					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
				EN 303446-1:2020	ElectroMagnetic Compatibility (EMC) standard for combined and/or integrated radio and non-radio equipment; Part 1: Requirements for equipment intended to be used in residential, commercial and light industry locations
				EN 303446-2:2020	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
				EN 303204-1:2021	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

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: Technical characteristics and test methods
				EN 300330-1:2015	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 range 9 kHz to 30 MHz; Part 1: Technical characteristics and test methods
			安全性 Safety	EN 302999:2013	Safety; Remote Power Feeding Installations; Safety requirements for the erection and operation of information technology installations with remote power feeding
			網路交換機 Network switch	IEC 60950-1:2005+ AMD1:2009+ AMD2:2013	Information technology equipment - Safety - Part 1: General requirements
				IEC 61000-4-2:2008	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test
				IEC 61000-4-3:2020	Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement

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
					techniques - Radiated, radio-frequency, electromagnetic field immunity test
				IEC 61000-4-4:2012	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test
				IEC 61000-4-5:2014+AMD1:2017	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test
				IEC 61000-4-6:2013	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
				IEC 61000-4-7:2002+AMD1:2008	Electromagnetic compatibility (EMC) - Part 4-7: Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto
				IEC 61000-4-8:2009	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement

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
					techniques - Power frequency magnetic field immunity test
				IEC 61000-4-9:2016	Electromagnetic compatibility (EMC) - Part 4-9: Testing and measurement techniques - Impulse magnetic field immunity test
				IEC 61000-4-10: 2016	Electromagnetic compatibility (EMC) - Part 4-10: Testing and measurement techniques - Damped oscillatory magnetic field immunity test
				IEC 61000-4-11: 2020	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase
				IEC 61000-4-12: 2017	Electromagnetic Compatibility (EMC) - Part 4-12: Testing and measurement techniques - Ring wave immunity test
				IEC 61000-4-13: 2002+AMD1:2009+ AMD2:2015	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling

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
					at a.c. power port, low frequency immunity tests
				IEC 61000-4-14: 1999+AMD1:2001+AMD2:2009	Electromagnetic compatibility (EMC) - Part 4-14: Testing and measurement techniques - Voltage fluctuation immunity test for equipment with input current not exceeding 16 A per phase
				IEC 61000-4-15: 2010	Electromagnetic compatibility (EMC) - Part 4-15: Testing and measurement techniques - Flickermeter - Functional and design specifications
				IEC 61000-4-16: 2015	Electromagnetic compatibility (EMC) - Part 4-16: Testing and measurement techniques - Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 kHz
				IEC 61000-4-17: 1999+AMD1:2001+AMD2:2008	Electromagnetic compatibility (EMC) - Part 4-17: Testing and measurement techniques - Ripple on d.c. input power port immunity test
				IEC 61000-4-18: 2019	Electromagnetic compatibility (EMC) - Part 4-18: Testing and measurement

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
					techniques - Damped oscillatory wave immunity test
				IEC 61000-4-19: 2014	Electromagnetic compatibility (EMC) - Part 4-19: Testing and measurement techniques - Test for immunity to conducted, differential mode disturbances and signalling in the frequency range 2 kHz to 150 kHz at a.c. power ports
				IEC 61000-4-20: 2010	Electromagnetic compatibility (EMC) - Part 4-20: Testing and measurement techniques - Emission and immunity testing in transverse electromagnetic (TEM) waveguides
				IEC 61000-4-21: 2011	Electromagnetic compatibility (EMC) - Part 4-21: Testing and measurement techniques - Reverberation chamber test methods
				IEC 61000-4-22: 2010	Electromagnetic compatibility (EMC) - Part 4-22: Testing and measurement techniques - Radiated emissions and immunity measurements in fully anechoic rooms (FARs)

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 61000-4-23: 2016	Electromagnetic compatibility (EMC) - Part 4-23: Testing and measurement techniques - Test methods for protective devices for HEMP and other radiated disturbances
				IEC 61000-4-24: 2015	Electromagnetic compatibility (EMC) - Part 4-24: Testing and measurement techniques - Test methods for protective devices for HEMP conducted disturbance
				IEC 61000-4-25: 2001+AMD1:2012+ AMD2:2019	Electromagnetic compatibility (EMC) - Part 4-25: Testing and measurement techniques - HEMP immunity test methods for equipment and systems
				IEC 61000-4-27: 2000+ AMD1:2009	Electromagnetic compatibility (EMC) - Part 4-27: Testing and measurement techniques - Unbalance, immunity test for equipment with input current not exceeding 16 A per phase
				IEC 61000-4-28: 1999+ AMD1:2001+ AMD2:2009	Electromagnetic compatibility (EMC) - Part 4-28: Testing and measurement techniques - Variation of power frequency, immunity test for equipment

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
					with input current not exceeding 16 A per phase
				IEC 61000-4-29: 2000	Electromagnetic compatibility (EMC) - Part 4-29: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests
				IEC 61000-4-30: 2015+ AMD1:2021	Electromagnetic compatibility (EMC) - Part 4-30: Testing and measurement techniques - Power quality measurement methods
				IEC 61000-4-31: 2016	Electromagnetic compatibility (EMC) - Part 4-31: Testing and measurement techniques - AC mains ports broadband conducted disturbance immunity test
				IEC 61000-4-33: 2005	Electromagnetic compatibility (EMC) - Part 4-33: Testing and measurement techniques - Measurement methods for high-power transient parameters
				IEC 61000-4-34: 2005+ AMD1:2009	Electromagnetic compatibility (EMC) - Part 4-34: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations

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
					immunity tests for equipment with mains current more than 16 A per phase
				IEC 61000-4-36: 2020	Electromagnetic compatibility (EMC) - Part 4-36: Testing and measurement techniques - IEMI immunity test methods for equipment and systems
				IEC 61000-4-39: 2017	Electromagnetic compatibility (EMC) - Part 4-39: Testing and measurement techniques - Radiated fields in close proximity - Immunity test
				IEC 62368-1:2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements
				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 55032:2015	Electromagnetic compatibility of multimedia equipment - Emission Requirements
				EN TS 103389:2022	Rail Telecommunications (RT); Global System for Mobile communications

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
					(GSM); Usage of Session Initiation Protocol (SIP) on the Network Switching Subsystem (NSS) to Fixed Terminal Subsystem (FTS) interface for GSM Operation on Railways
			全球行動通信系統 Global system for mobile communications	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 1999)
				EN 300910:2002	Digital cellular telecommunications system (Phase 2+) (GSM); Radio transmission and reception (GSM 05.05 version 8.5.1 Release 1999)
				EN 300919:2001	Digital cellular telecommunications system (Phase 2+) (GSM); Types of Mobile Stations (MS) (GSM 02.06 version 7.0.1 Release 1998)
				EN 300925:2000	Digital cellular telecommunications system (Phase 2+) (GSM); Voice Group Call Service (VGCS) - Stage 1 (GSM 02.68 version 7.0.2 Release 1998)

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 300926:2000	Digital cellular telecommunications system (Phase 2+) (GSM); Voice Broadcast Service (VBS) - Stage 1 (GSM 02.69 version 8.0.1 Release 1999)
				EN 300965:2001	Digital cellular telecommunications system (Phase 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 301087:2001	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 301419-1:2000	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)
				EN 301419-3:2006	Digital cellular telecommunications system (Phase 2+); Attachment

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
					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 301419-7:2006	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 301502:2016	Global System for Mobile communications (GSM); Base Station (BS) equipment; Harmonised Standard covering the 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

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 301515:2018	Global System for Mobile communication (GSM); Requirements for GSM operation on railways
				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
				EN TS 122289:2022	LTE; 5G; Mobile communication system for railways (3GPP TS 22.289 version 17.0.0 Release 17)
鐵路專用無線電 Railway radio	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems	鐵路專用無線電 Railway radio	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
	IEC 62425:2007	Railway applications - Communication, signalling and		EN 300761-2:2002	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range

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 50129:2018)	processing systems - Safety related electronic systems for signalling			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
	IEC 62845:2015 (EN 50239:2018)	Railway applications - Radio remote control system of traction vehicles for shunting application		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
				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 2: Requirements for UWB location tracking

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 302065-3:2016	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 302448:2016	Satellite Earth Stations and Systems (SES); Harmonized EN 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
	IEC 61375-2-3:2015	Electronic railway equipment - Train communication network	列車間通訊		

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
列車間通訊 Train communication	(EN 61375-2-3:2015 + A11:2017)	(TCN) - Part 2-3: TCN communication profile	Train communication		
	IEC 62279:2015 (EN 50128:2020)	Railway applications - Communication, signalling and processing systems - Software for railway control and protection systems			
	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 61375-2-6:2018 (EN 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			

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			

■ 軌道系統

表 3-5 我國鐵道類標準整體架構-軌道系統列表

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
	ISO 23054-1:2022	Railway applications - Track geometry quality - Part 1: Characterization of track geometry and track geometry quality		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
	ISO 23300-1:2021	Railway infrastructure - Rail welding - Part 1: General requirements and test methods for rail welding		EN 16771:2016	Railway applications - Infrastructure - Aluminothermic welding of grooved rails
	EN 10027-1:2016	Designation systems for steels - Part 1: Steel names			
	EN 13674-4:2019	Railway applications - Track - Rail - Part 4: Vignole railway rails from 27 kg/m to, but excluding 46 kg/m	軌道檢測 Rail inspection	EN 13977:2011	Railway applications - Track - Safety requirements for portable machines and trolleys for construction and maintenance
	EN 13803:2017	Railway applications - Track - Track alignment design parameters - Track gauges 1 435 mm and wider		EN 14033-1:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 1: Technical requirements for running
	EN 13848-1:2019	Railway applications - Track - Track geometry quality - Part 1: Characterization of track geometry		EN 14033-2:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 2: Technical requirements for travelling and working
	EN 13848-2:2006	Railway applications - Track - Track geometry quality - Part 2: Measuring systems - Track recording vehicles		EN 14033-3:2017	Railway applications - Track - Railbound construction and maintenance machines - Part 3: General safety requirements
	EN 13848-3:2021	Railway applications - Track - Track geometry quality - Part 3: Measuring systems - Track construction and maintenance machines		EN 14033-4:2019	Railway applications - Track - Railbound construction and maintenance machines - Part 4: Technical requirements for running, travelling and working on urban rail
	EN 13848-4:2011	Railway applications - Track - Track geometry quality - Part 4: Measuring		EN 15746-1:2010+A1:2011	Railway applications - Track - Road-rail machines and associated equipment - 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
		systems - Manual and lightweight devices			Technical requirements for running and working
	EN 13848-5: 2017	Railway applications - Track - Track geometry quality - Part 5: Geometric quality levels - Plain line, switches and crossings		EN 15746-2: 2010+A1:2011	Railway applications - Track - Road-rail machines and associated equipment - Part 2: General safety requirements
	EN 13848-6: 2014	Railway applications - Track - Track geometry quality - Part 6: Characterisation of track geometry quality		EN 16729-1:2016	Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 1: Requirements for ultrasonic inspection and evaluation principles
	EN 15427-1-1: 2022	Railway applications - Wheel/Rail friction management - Part 1-1: Equipment and Application - Flange Lubricants		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 15427-2-1: 2022	Railway applications - Wheel/Rail friction management - Part 2-1: Properties and Characteristics - Flange lubricants		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

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 17069-1:2019	Railway applications - Systems and procedures for change of track gauge - Part 1: Automatic Variable Gauge Systems
			軌距 Gauges	EN 13803:2017	Railway applications - Track - Track alignment design parameters - Track gauges 1435 mm and wider
				UIC IRS 70710:2020 (UIC 710:2004)	Railway application - Minimum track gauge in curves
			護軌 Guard rail, Check rail	EN 13674-3: 2006+A1:2010	Railway applications - Track - Rail - Part 3: Check rails
			其他 Others	CNS 14566 (UIC 864-1:1982)	螺旋道釘

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 14567	螺旋道釘檢驗法
				CNS 14568 (UIC 864-2:1982)	軌道用螺栓及螺帽
				CNS 14569 (UIC 864-2:1982)	軌道用螺栓及螺帽檢驗法
				CNS 14625 (UIC 864-3:1982)	軌道用彈簧墊圈
				CNS 14626 (UIC 866:1985)	錳鋼岔心
				EN 13231-2:2020	Railway applications - Track - Acceptance of works - Part 2: Acceptance of reprofiling rails in plain line, switches, crossings and expansion devices
				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

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 15954-1:2013	Railway applications - Track - Trailers and associated equipment - Part 1: Technical requirements for running and working
				EN 15954-2:2013	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
				EN 15955-2:2013	Railway applications - Track - Demountable machines and associated equipment - Part 2: General safety requirements
				EN 16273:2014	Railway applications - Track - Forged rail transitions
				UIC 774-3:2001	Track / Bridge Interaction Recommendations for Calculations.
道床 Track bed	ISO 12856-1:2022	Railway applications - Polymeric composite sleepers, bearers and transoms - Part 1: Material characteristics	道碴軌道 Ballasted track	EN 16432-1:2017	Railway applications - Ballastless track systems - Part 1: General requirements
	ISO 12856-3:2022	Railway applications - Polymeric composite sleepers, bearers and transoms - Part 3: General requirements	無道碴軌道 Ballastless track	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
	EN 13232-1:2003	Railway applications - Track - Switches and crossings - Part 1: Definitions		EN 16432-3:2021	Railway applications - Ballastless track systems - Part 3: Acceptance
	EN 13232-2:2003+A1:2011	Railway applications - Track - Switches and crossings - Part 2: Requirements for geometric design		EN 17682:2022	Railway applications - Infrastructure - Resilient element for floating slab system
	EN 13232-1:2003	Railway applications - Track - Switches and crossings - Part 1: Definitions	木質軌枕 Wood sleeper	EN 13145:2001+A1:2011	Railway applications - Track - Wood sleepers and bearers
	EN 13674-2:2019	Railway applications - Track - Rail - Part 2: Switch and crossing rails used in conjunction with Vignole railway rails 46 kg/m and above			
	UIC IRS 70719:2020 (UIC 719:2008)	Track & Structure - "Earthworks and track bed layers for railway lines" - Design and construction principles			
		空心軌枕 Hollow sleeper	EN 16431:2014	Railway applications - Track - Hollow sleepers and bearers	
		混擬土軌枕 Concrete sleeper	ISO 22480-1:2022	Railway applications - Concrete sleepers and bearers for track - Part 1: General 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 22480-2: 2022	Railway applications - Concrete sleepers and bearers for track - Part 2: Prestressed monoblock sleepers
				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
				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 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	ISO 12856-2: 2020	Railway applications - Polymeric composite sleepers, bearers and transoms - Part 2: Product testing

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
			其他 Others	EN 16494:2015	Railway applications - Requirements for ERTMS Trackside Boards
特殊軌 Special track			道岔 Crossing	CNS 16133 (EN 13232-4:2005+A1:2011)	鐵路應用－軌道－尖軌及岔心－第 4 部：致動、鎖定及轍查
				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
				EN 13232-3: 2003+ A1:2011	Railway applications - Track - Switches and crossings - Part 3: Requirements for wheel/rail interaction
				EN 13232-5: 2005+ A1:2011	Railway applications - Track - Switches and crossings - Part 5: Switches
				EN 13232-6: 2005+A1:2011	Railway applications - Track - Switches and crossings - Part 6: Fixed common and obtuse crossings

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 13232-7: 2006+A1:2011	Railway applications - Track - Switches and crossings - Part 7: Crossings with moveable parts
				EN 13232-8: 2007+A1:2011	Railway applications - Track - Switches and crossings - Part 8: Expansion devices
				EN 13232-9: 2006+A1:2011	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
				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	CNS 16175-1 (EN 13146-1:2019)	鐵路應用-軌道-扣件系統之試驗法-第 1 部：鋼軌縱向束制之測定
				CNS 16175-7 (EN 13146-7:2019)	鐵路應用-軌道-扣件系統之試驗法-第 7 部：扣壓力與上舉勁度之測定

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 16143-5 (EN 13481-5: 2012+A1:2017)	鐵路應用-軌道-扣件系統之性能要求- 第 5 部：版式軌道用鋼軌安裝於表面 或埋入槽內之扣件系統		CNS 16175-8 (EN 13146-8: 2012)	鐵路應用-軌道-扣件系統之試驗法-第 8 部：營運線上測試
	ISO 22074-1: 2020	Railway infrastructure - Rail fastening systems - Part 1: Vocabulary		ISO 22074-2: 2021	Railway infrastructure - Rail fastening systems - Part 2: Test method for longitudinal rail restraint
	EN 13481-1: 2012	Railway applications - Track - Performance requirements for fastening systems - Part 1: Definitions		ISO 22074-3: 2021	Railway infrastructure - Rail fastening systems - Part 3: Proof load test method for pull-out resistance
	EN 13481-3: 2012	Railway applications - Track - Performance requirements for fastening systems - Part 3: Fastening systems for wood sleepers		ISO 22074-4: 2022	Railway infrastructure - Rail fastening systems - Part 4: Test methods for resistance to repeated loading
	EN 13481-4: 2012	Railway applications - Track - Performance requirements for fastening systems - Part 4: Fastening systems for steel sleepers		ISO 22074-5: 2021	Railway infrastructure - Rail fastening systems - Part 5: Test method for electrical resistance
	EN 13481-6: 2002	Railway applications. Track. Performance requirements for fastening systems - Special fastening systems for			

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
		attenuation of vibration			
	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 13481-8: 2006	Railway applications - Track - Performance requirements for fastening systems - Part 8: Fastening systems for track with heavy axle loads		ISO 22074-6: 2021	Railway infrastructure - Rail fastening systems - Part 6: Test method for resistance to severe environmental conditions
	EN 17495: 2022	Railway Applications - Acoustics - Determination of the dynamic stiffness of elastic track components related to noise and vibration: Rail pads and rail fastening assemblies		ISO 22074-7: 2021	Railway infrastructure - Rail fastening systems - Part 7: Test method for clamping force and uplift stiffness
				ISO 22074-8: 2022	Railway infrastructure - Rail fastening systems - Part 8: Test method for vertical stiffness
				EN 13146-2:2012	Railway applications - Track - Test methods for fastening systems - Part 2: Determination of torsional resistance
				EN 13146-3:2012	Railway applications - Track - Test methods for fastening systems - Part 3: Determination of attenuation of impact loads

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 13146-4: 2012+ A1:2014	Railway applications - Track - Test methods for fastening systems - Part 4: Effect of repeated loading
				EN 13146-5: 2012+AC:2017	Railway applications - Track - Test methods for fastening systems - Part 5: Determination of electrical resistance
				EN 13146-6:2012	Railway applications - Track - Test methods for fastening systems - Part 6: Effect of severe environmental conditions
				EN 13146-9: 2009+A1:2011	Railway applications - Track - Test methods for fastening systems - Part 9: Determination of stiffness
				EN 13146-10: 2017	Railway applications - Track - Test methods for fastening systems - Part 10: Proof load test for pull-out resistance
安全措 施 Safety measure			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)
			止衝檔 Buffer stops		

1 階項目	標準號碼	標準標題	2 階項目	標準號碼	標準標題
			阻輪器 Wheel stop		
			其他 Others	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
				EN 16704-3:2021	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

表 3-6 我國鐵道類標準整體架構-智慧鐵道系統列表

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	CNS 61375-2-4 (IEC TS 61375-2-4:2017)	電子化鐵路設備－列車通訊網路(TCN)－第 2-4 部：TCN 應用規範	通訊安全 Commucation safety	CNS 27001 (ISO/IEC 27001)	資訊安全、網宇安全及隱私保護－資訊安全管理系統－要求事項
	CNS 62280 (IEC 62280:2014) (EN 50159:2010 +A1:2020)	鐵路應用－通訊、號誌及處理系統－傳輸系統之安全相關通訊		ISO/IEC TR 24587: 2021	Software and systems engineering - Agile development - Agile adoption considerations
	IEC 61375-1:2012 (EN 61375-1:2012)	Electronic railway equipment - Train communication network (TCN) - Part 1: General architecture			
	EN 61375-2-1:2012 (EN 61375-2-1:2012)	Electronic railway equipment - Train communication network (TCN) Part 2-1: Wire Train Bus (WTB)			

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 61375-2-2:2012 (EN 61375-2-2:2012)	Electronic railway equipment - Train communication network (TCN) Part 2-2: Wire Train Bus conformance testing			
	IEC 61375-2-3:2015 (EN 61375-2-3:2015 + A11:2017)	Electronic railway equipment - Train communication network (TCN) - Part 2-3: TCN communication profile			
	IEC 61375-2-5:2015 (EN 61375-2-5:2015)	Electronic railway equipment - Train communication network (TCN) - Part 2-5: Ethernet train backbone			
	IEC 61375-2-6:2018 (EN IEC 61375-2-6:2018)	Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication			
	IEC 61375-2-8:2021 (EN IEC 61375-2-8:2021)	Electronic railway equipment - Train communication network (TCN) - Part 2-8: TCN conformance test			

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 61375-3-1:2012 (EN 61375-3-1:2012)	Electronic railway equipment - Train communication network (TCN) - Part 3-1: Multifunction Vehicle Bus (MVB)			
	IEC 61375-3-2:2012 (EN 61375-3-2:2012)	Electronic railway equipment - Train communication network (TCN) - Part 3-2: MVB (Multifunction Vehicle Bus) conformance testing			
	IEC 61375-3-3:2012 (EN 61375-3-3:2012)	Electronic railway equipment - Train communication network (TCN) Part 3-3: CANopen Consist Network (CCN)			
	IEC 61375-3-4:2014 (EN 61375-3-4:2014+A11:2017)	Electronic railway equipment -Train communication network(TCN) Part 3-4: Ethernet Consist Network (ECN)			
系統介面 System interface	IEC 62279:2015	Railway applications - Communication, signalling and processing systems -	系統相容性 System compatability	CNS 16164-1 (IEC 62427:2007)	鐵路應用-鐵路車輛與列車偵測系統間相容性-第 1 部：通則

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 50128:2020)	Software for railway control and protection systems		(EN 50238-1:2019)	
			安全要求 Safety requirement	IEC 62425:2007 (EN 50129:2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling
			軟體要求 Software requirement		
雲端設備 Cloud equipment	IEC 62443-2-1:2010	Industrial communication networks - Network and system security - Part 2-1: Establishing an industrial automation and control system security program	自動化及控制系統安全 Automation and control system security		
	IEC 62443-2-4:2015+AMD1:2017	Security for industrial automation and control systems - Part 2-4: Security program requirements for IACS service providers			
	IEC 62443-3-2:2020	Security for industrial automation and control systems - Part 3-2: Security risk assessment for system design			

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 62443-3-3:2013	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	CNS 62498-3 (IEC 62498-3:2010) (EN 50125-3:2003)	鐵路應用－設備之環境條件－第 3 部:號誌及電訊設備	裝置安裝需求 Device installation requirement		
	IEC 62498-1:2010	Railway applications - Environmental conditions for			

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 50125-1:2014)	equipment - Part 1: Rolling stock and on-board equipment			
	IEC 62498-2:2010 (EN 50125-2:2002)	Railway applications - Environmental conditions for equipment - Part 2: Fixed electrical installations			
	IEC 60364-4-41:2005+AMD1:2017	Low voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock			
			安全要求 Safety requirement		

■ 系統驗證(RAMS)

表 3-7 我國鐵道類標準整體架構-系統驗證列表

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 TR 61508-0: 2005	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 0: Functional safety and IEC 61508	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
	IEC 61508-1: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 1: General requirements	通訊驗證 Communication RAMS	CNS 62280 (IEC 62280: 2014) (EN 50159: 2010+A1:2020)	鐵路應用－通訊、號誌及處理系統－傳輸系統之安全相關通訊
	IEC 61508-2: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 2: Requirements for electrical/electronic/programmable electronic safety-related systems	車輛驗證 Vehicle RAMS	CNS 61377 (IEC 61377: 2016) (EN 61377:2016)	鐵路應用－鐵路車輛－牽引系統綜合試驗法
	IEC 61508-3: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 3: Software requirements		CNS 61881-3 (IEC 61881-3: 2012+A1:2013) (EN 61881-3: 2012+A1:2013)	鐵路應用－鐵路車輛設備－電力電子之電容器－第 3 部：電雙層電容器

1 階項目	標準號碼	標準標題	項目	標準號碼	標準標題
	IEC 61508-4: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 4: Definitions and abbreviations	供電驗證 Power supply RAMS		
	IEC 61508-5: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 5: Examples of methods for the determination of safety integrity levels	軌道安全 Track safety	CNS 16175-8 (EN 13146-8: 2012)	鐵路應用-軌道-扣件系統之試驗法-第 8 部：營運線上測試
	IEC 61508-6: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 6: Guidelines on the application of IEC 61508-2 and IEC 61508-3	系統風險與評估 System risk evaluation		
	IEC 61508-7: 2010	Functional safety of electrical/electronic/programmable electronic safety-related systems - Part 7: Overview of techniques and measures			

1 階項目	標準號碼	標準標題	項目	標準號碼	標準標題
	IEC 62278: 2002	Railway applications - Specification and demonstration of reliability, availability, maintainability and safety (RAMS)			
	IEC 62425: 2007 (EN 50129: 2018)	Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling			
	EN 50126-1: 2017	Railway Applications - The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS) - Part 1: Generic RAMS Process			

1 階項目	標準號碼	標準標題	項目	標準號碼	標準標題
	EN 50126-2: 2017	Railway Applications - The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS) - Part 2: Systems Approach to Safety			

■ 其他系統

表 3-8 我國鐵道類標準整體架構-其他系統列表

1 階項目	標準號碼	標準標題
一般機電系統 General electromechanical system	ISO/IEC 14443-1:2018	Cards and security devices for personal identification - Contactless proximity objects - Part 1: Physical characteristics
	ISO/IEC 14443-2:2020 +COR1:2021	Corrigendum 1 - Cards and security devices for personal identification - Contactless proximity objects - Part 2: Radio frequency power and signal interface
	ISO/IEC 14443-3:2018	Cards and security devices for personal identification - Contactless proximity objects - Part 3: Initialization and anticollision
	ISO/IEC 14443-4:2018	Cards and security devices for personal identification - Contactless proximity objects - Part 4: Transmission protocol
	ISO 22888:2020	Railway applications - Concepts and basic requirements for the planning of railway operation in the event of earthquakes
	ISO 23019:2022	Railway applications - Driving simulator for drivers' training
	ISO 24675-1:2022	Railway Applications - Running time calculation for timetabling - Part 1: Requirements
	IEC 60598-1:2020	Luminaires - Part 1: General requirements and tests
	EN 81-73:2020	Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts - Behaviour of lifts in the event of fire
	EN 115-1:2017	Safety of escalators and moving walks - Construction and installation
	EN 115-2:2021	Safety of escalators and moving walks - Rules for the improvement of safety of existing escalators and moving walks
	EN 16334-2:2020	Railway applications - Passenger Alarm System - Part 2: System requirements for urban rail
	EN 17168:2021	Railway applications - Platform barrier systems
	EN 16334-1:2014+A1:2022	Railway applications - Passenger Alarm System - Part 1: System

1 階項目	標準號碼	標準標題
		requirements for mainline rail
標誌與標示 Logos and signs	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	Railway applications - Aerodynamics - Part 1: Symbols and units
	EN 14067-3:2003	Railway applications - Aerodynamics - Part 3: Aerodynamics in tunnels
	EN 14067-4:2013+A1:2018	Railway applications - Aerodynamics - Part 4: Requirements and test procedures for aerodynamics on open track
	EN 14067-5:2021+AC:2023	Railway applications - Aerodynamics - Part 5: Requirements and test procedures for aerodynamics in tunnels

1 階項目	標準號碼	標準標題
	EN 14067-6:2018	Railway applications - Aerodynamics - Part 6: Requirements and test procedures for cross wind assessment
工程圖要求 Drawings	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
	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
行動不便 PRM	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
	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
	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

1 階項目	標準號碼	標準標題
安全要求 Safety	IEC 62267:2009	Railway applications - Automated urban guided transport (AUGT) - Safety requirements
	EN 16704-1:2021	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