

Nidec

All for dreams



MACHINE ROOM SERIES

NIDEC ELEVATOR

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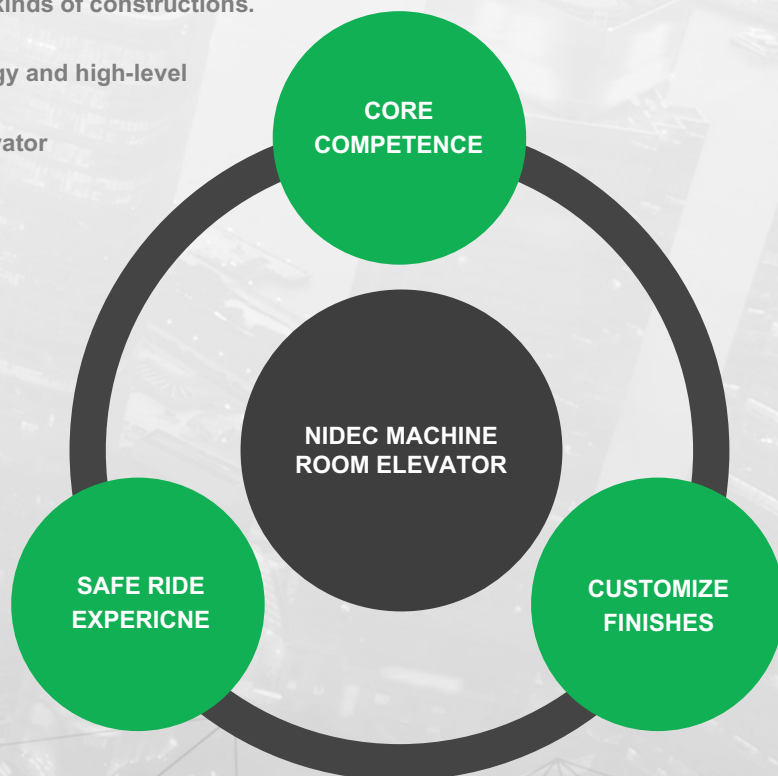
FIXTURES AND FINISHES

MRO HOISTWAY DIAGRAM

NIDEC MR SERIES

Nidec machine room elevator is the combination of technology and efficiency. Nidec installs remarkable projects and builds the city with innovation all over the world, including commercial, residential, public and different kinds of constructions.

With the sophisticated technology and high-level safety, Nidec machine-room elevator moves up with value and quality.

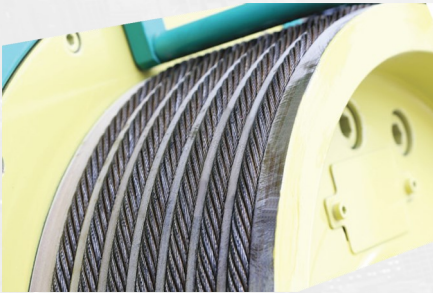


CORE COMPETENCE



MACHINE ROOM ELEVATOR CORE COMPETENCE

The traction system and the control system are the heart and the brain of the elevator. Therefore, Nidec has its self-developed and control systems. Utilizing more than a century development, Nidec's traction and control system technology has been proven international ally. From gear to ACPM machine, regular control to the integrated control system, Nidec optimizes the space, energy efficiency, safety and comfort.



ACPM TRACTION SYSTEM

With light and compact traction system, the Nidec ACPM traction system can increase energy efficiency and reduce the machine room space. The encoder records the run with high transmission efficiency and low operation cost. The system provides a smooth and comfortable experience. From the design to production, Nidec's traction system embodies decades of research and technical achievements.

CONTROL SYSTEM

Compact Integrated control system improves efficiency and saves space S-curve technology for direct stopping, ensure ride comfort and leveling accuracy Real-time management, easy building adjustment Support 220VAC power input with UPS emergency backup after power failure Redundant safety design, high-level of safety guarantee.

ULTRA-THIN DOOR OPERATOR

Unique ACPM door motor with fault detection and record, which provides safe, quiet and high-efficiency. It reduces energy by up to 35%. The speed and power can be adjusted. The built-in run curve optimizes the self-learn. The full closed-loop controls the speed and the position software, which provides high accuracy.

SAFE RIDE EXPERIENCE

Our innovation and technology build upon safety and environment-friendly. Our goal is to provide a comprehensive safe riding experience.

Unintended Car Movement Protection (UCMP)

When the elevator is moving accidentally at the leveling with the door open, the UCMP device would automatically function. The elevator would immediately stop to protect the passenger and devices.



Door Protection

When the elevator is moving accidentally at the leveling with the door open, the UCMP device would automatically function. The elevator would immediately stop to protect the passenger and devices.

Infra-red Light Curtain

When passenger enters the elevator and blocks the infra-red beam, the light curtain detects automatically and output the signal to the door system. The door opens instantly without harming and clamping to the passenger.

Advanced Structural Design

- We design the cabin with extra structure. The double-deck structure and vibration isolation Improve the ride comfort and safety.
- Extra Rail Support design to make sure the guide rail straightness and stiffness, which ensure high ride comfort.

NIOE SYSTEM

- Base from IIOT, big data analytics and data encryption
- Adopt B/S structure, communicate with ease with a PC, cell phone or tablet
- Provide buffer and backup service for database and relational database
- Real-time monitoring, car visual monitoring and car alarm vocal conversation
- Safety management and preventive maintenance

Remote Control

- Monitoring on elevator operation, failure and alarm status
- Remote visual control on the cabin
- Voice communication from VOIP and public telephone net
- Transfer monitoring data to government control platform

Data Analysis

- Store elevator historical alarming and events
- Historical data analysis and intelligent analysis, provide basic management for preventive/ predictive maintenance

Management

- Management on regular repair, maintenance and malfunction
- Management on operation statistic data and preventive maintenance
- Management on after-sale service and technical support

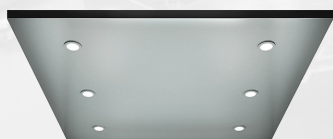
FIXTURES AND FINISHES

STANDARD CABIN FINISHES

Ceiling	Cold Plate Sprayed Metal
	LED Light
	Hairline Stainless Steel (blocked plate)
Side	LED Light
	Hairline Stainless Steel
	Hairline Stainless Steel
Flooring	PVC Flooring



STANDARD OPTIONS



COLD PLATE SPRAYED METAL
LED LIGHT



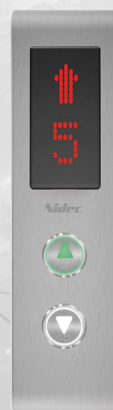
HAIRLINE STAINLESS STEEL
(BLOCKED PLATE)
LED LIGHT



STANDARD PUSH BUTTON



STANDARD-DOT MATRIX



STANDARD-LCD

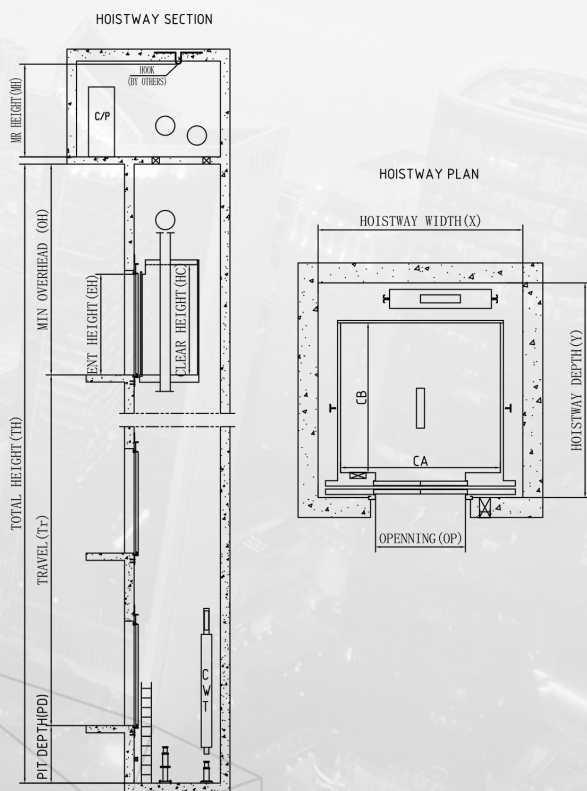


MRO PRODUCT RANGE

Machine Room Elevator Product Range	
Capacity	630ks-2000kg
Speed	1.0m/s-1.75m/s 2.0m/s-2.5m/s
Traction System	ACPM Machine
Control System	N-MC1000-VVVF
Door Operator	Ultra-thin ACPM Door Operator

MRO HOISTWAY DIAGRAM

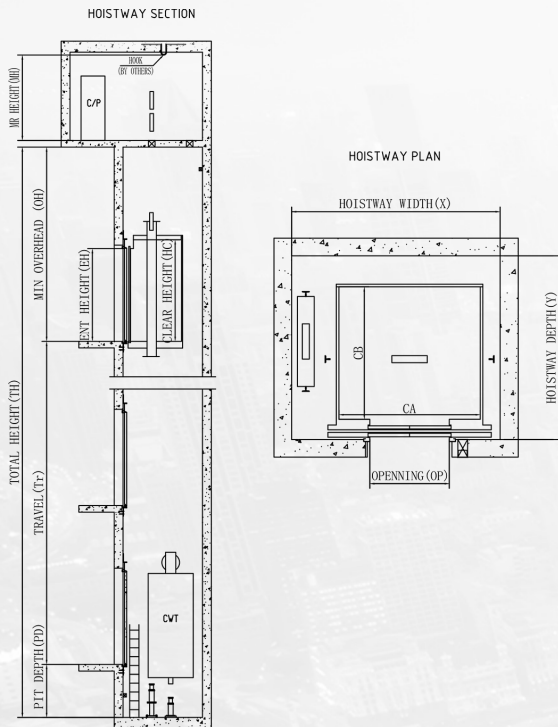
LOW-RISE MRO (REAR COUNTER WEIGHT) - CENTER OPENING



Capacity		Speed (m/s)	Car inside	Max Clear Opening	Hoistway (mm) (X x Y)
KG	Persons				
630	8	1.0/1.5/1.75	1400X1100	800	1800X1750
800	10	1.0/1.5/1.75	1400x1350	800	1800x2000
900	12	1.0/1.5/1.75	1600x1350	900	2050x2000
1000	13	1.0/1.5/1.75	1600x1500	900	2050x2150
1200	16	1.0/1.5/1.75	1800x1500	1100	2400x2150
1350	18	1.0/1.5/1.75	2000x1550	1100	2550x2250

Capacity	Speed (m/s)	Min. Overhead OH (mm)	Min. Pit PD (mm)	MR Height MH (mm)
KG				
630-1000	8	4190	1400	2200
	1.5	4310	1600	
	1.75	4370	1700	
1200-1350	1.0	4300	1400	2200
	1.5	4500	1600	
	1.75	4500	1700	

LOW-RISE MRO (SIDE COUNTER WEIGHT) - CENTER OPENING)

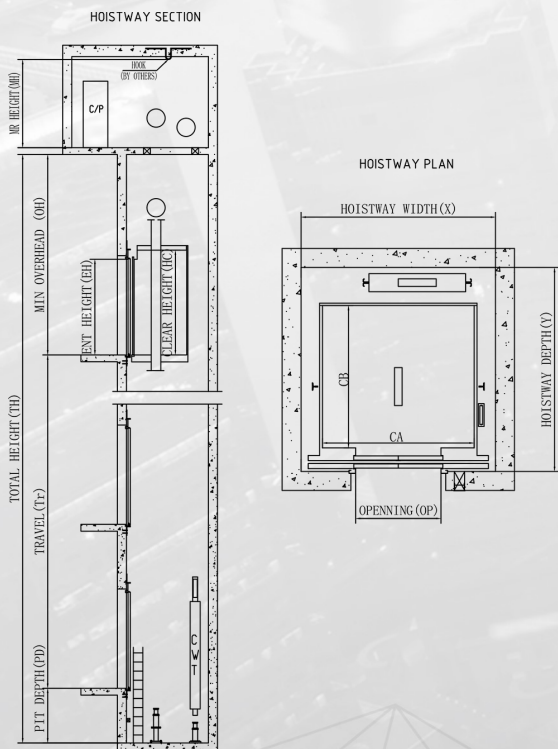


MRO Technical Data (Side Counterweight-Center Opening : 2:1

Capacity		Speed (m/s)	Car inside	Max Clear Opening OP(mm)	Hoistway (mm) (X x Y)
KG	Persons				
1600	21	1.0/1.5/1.75	1750x2000	1100	2700x2400
2000	26	1.0/1.5/1.75	2000x2100	1200	2950x2500

Capacity		Speed (m/s)	Min. Overhead OH(mm)	Min. Pit PD(mm)	MR Height MH (mm)
KG					
1600-2000		1.0	4300	1400	2200
		1.5	4500	1600	
		1.75	4600	1700	

MID-RISE MRO (REAR COUNTER WEIGHT) - CENTER OPENING)

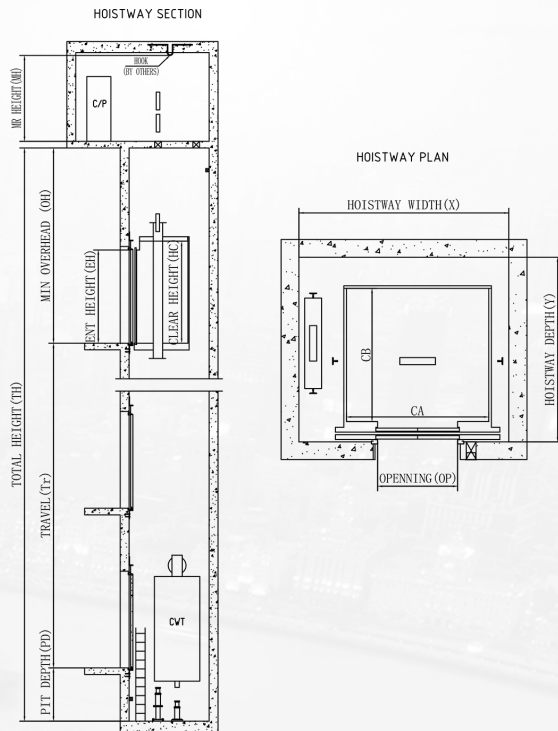


MRO Technical Data (Side Counterweight-Center Opening ; 2:1

Capacity		Speed (m/s)	Car inside (mm) CA x CB	Max Clear Opening OP (mm)	Hoistway (mm) (XxY)
KG	Persons				
800	10	2.0/2.5	1400X1350	800	2000X2100
900	12	2.0/2.5	1600X1350	900	2250X2150
1000	13	2.0/2.5	1600X1500	900	2300X2300
1200	16	2.0/2.5	1800X1500	1100	2600X2300
1350	18	2.0/2.5	2000X1550	1100	2800X2450

Capacity		Speed (m/s)	Min. Overhead OH (mm)	Min. Pit PD(mm)	MR Height MH(mm)
KG					
800-1350		2.0	4800	2100	2200
		2.5	5000	2400	

MID-RISE MRO (SIDE COUNTER WEIGHT) - CENTER OPENING)



MRO Technical Data (Side Counterweight-Center Opening: 2:1)

Capacity		Speed (m/s)	Car inside(mm) CAxCB	Max Clear Opening OP (mm)	Hoistway (mm) (YxX)
KG	Persons				
1600	21	2.0/2.5	1750x2000	1100	2900x2700
200	26	2.0/2.5	200x2100	1200	3200x2900

Capacity	Speed (m/s)	Min.Overhead OH (mm)	Min. Pit PD (mm)	MR Height MH (mm)
KG				
1600-2000	2.0	4800	2100	2200
	2.5	5000	2400	

MRO STANDARD FUNCTION

Type	No.	Function	Description
Safety	1	•	Door lock short circuit protection
	2	•	Light-curtain protection
	3	•	Overvoltage Protection
	4	•	Bus Voltage Protection
	5	•	Inverter overheat protection
	6	•	Overcurrent protection
	7	•	Overload protection
	8	•	Drive phase protection
	9	•	Fire recall protection
	10	•	Rope slip monitoring
	11	•	Fire fighter service
	12	•	Safety Circuit Direction
	13	•	Door lock circuit direction
	14	•	Brake travel switch feedback detection
	15	•	Drive feedback direction
	16	•	Limit switch protection
	17	•	Run contractor detection
	18	•	Brake contractor detection
	19	•	Rectifier overheat protection
	20	•	Unintended Car Movement protection
	21	•	Drive feedback protection
	22	•	CPU WDT protection
	23	•	Door lock protection during the run
	24	•	Door zone protection

Type	No.	Function	Description
Safety Emergency	25	•	Earthquake operation
	26	•	Encoder feedback detection
	27	•	Reverse running protection
	28	•	Motor overheat protection
AI Optimization	29	•	Leveling Adjustment
	30	•	Direct Landing
	31	•	Dynamic auto-tune
	32	•	Anti-rollback
	33	•	Current ramp when stopping
	34	•	Hoistway Learn Errors
	35	•	UI Call Register
	36	•	Full Selective
	37	•	Auto correction of car position
	38	•	Self-leveling Run
	39	•	Light load nuisance
	40	•	Hoistway Learn
	41	•	Door dwell cancellation
	42	•	Position Protection
Display and energy saving	43	•	Floor display setting
	44	•	Scroll to display running direction
	45	•	Dot matrix floor display
	46	•	User interface unprotected access
	47	•	Energy saving
	48	•	Real-time clock management

Type	No.	Function	Description
Run and Monitoring	49	•	Forced declaration function
	50	•	Elevator lock service
	51	•	Inspection door open/close operation
	52	•	Programmable input
	53	•	Programmable Output
	54	•	Attendant operation
	55	•	Hall call button monitoring
	56	•	Hall door open at leveling
	57	•	Door dwell cancellation
	58	•	Door reopening
	59	•	Brake voltage switching
	60	•	Car call cancellation
	61	•	Auto-homing
	62	•	Inspection run
	63	•	Fault history
	64	•	Door zone signal fault protection
	65	•	Door open/close protection
	66	•	Full load bypass
	67	•	Overload protection
	68	•	Internet monitoring
	69	•	Time blind floor
	70	•	Emergency power run (machine room inspection)
	71	•	Terminal inspection speed limit
	72	•	Service floor setting
	73	•	Independent run
	74	•	Test run

Type	No.	Function	Description
Optional Features	1	◦	Door open re-leveling
	2	◦	Car arrival chime
	3	◦	Rear/Front door control
	4	◦	Cabin IC card control
	5	◦	ADA mode
	6	◦	Emergency rescue
	7	◦	Hall lantern
	8	◦	Duplex
	9	◦	Group Control
	10	◦	Voice announcement
	11	◦	Rear door control box
	12	◦	Hall IC card control
	13	◦	Hall arrival chime

- Standard Features
- Optional Features

MACHINE ROOM SERIES