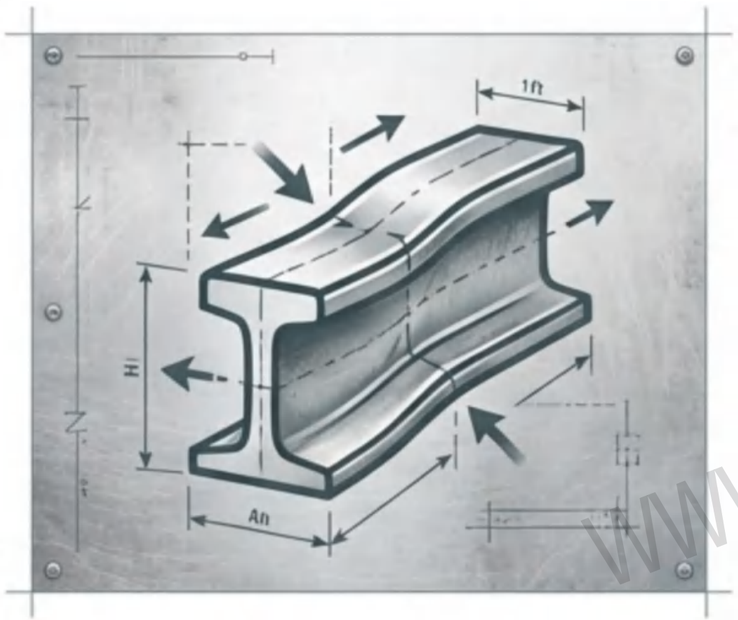
JDC Series Single-Pole Conductor Rail System

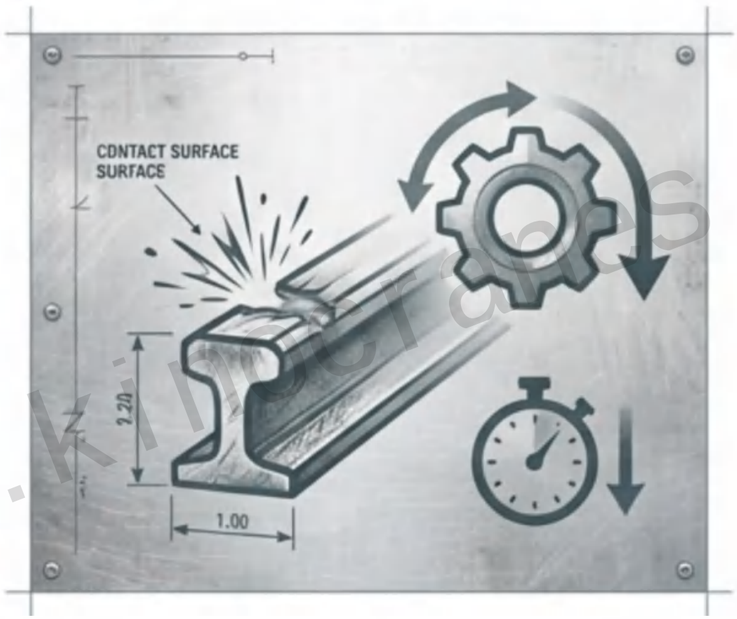
The Cost of Power Transmission Failure

In harsh industrial environments, standard conductor rails face critical vulner abiliies that disrupt operations



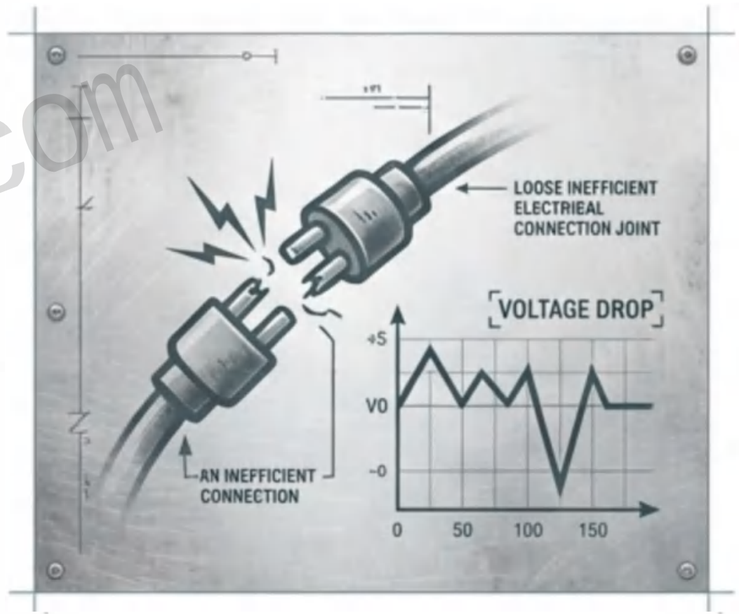
Structural Damage

Conventional rails are prone to deformation and mechanical misalignment under heavy stress, leading to system jams.



Low Durability

Rapid wear in high-friction environments accelerates replacement cycles and increases downtime costs.



Voltage Instability

Inefficient joints and poor contact surfaces cause significant voltage drops, compromising sensitive equipment.

The Industry Need:Arail system engineered for stability and longevity.

The JDC Advantage:Core Product Values

1 Continuous Power Supply

Uninterrupted energy flow designed for critical machinery and 24/7 operations.

2 Low Noise & High Speed

Engineered for quiet operation even during rapid transit, reducing noise pollution.

3 Safe Insulation

High-grade polymer protection ensures absolute operational safety.

4 Optimized Joints

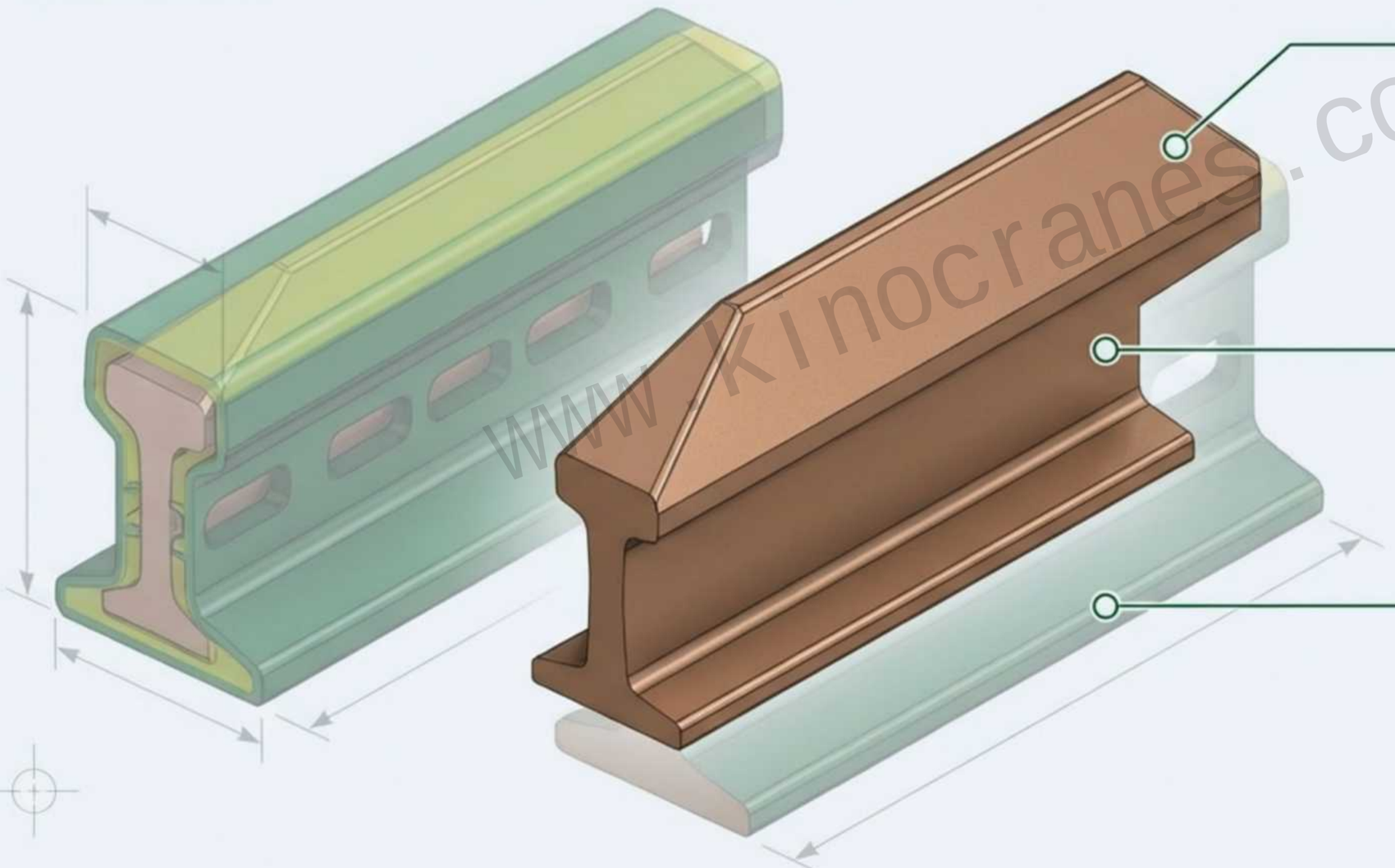
Specialized connection design eliminates dead spots and voltage drops.

5 Wide Adaptability

Resilient materials suitable for diverse environmental conditions, from humidity to dust.

Anatomy of Innovation:The Original Wedge Design

Engineered geometry for superior stability and conductivity.



Wedge Geometry

The unique wedge shape creates a self-aligning lock that provides superior mechanical stability compared to standard flat rails.

High-Purity Core

Available in copper or aluminum options for optimal conductivity.

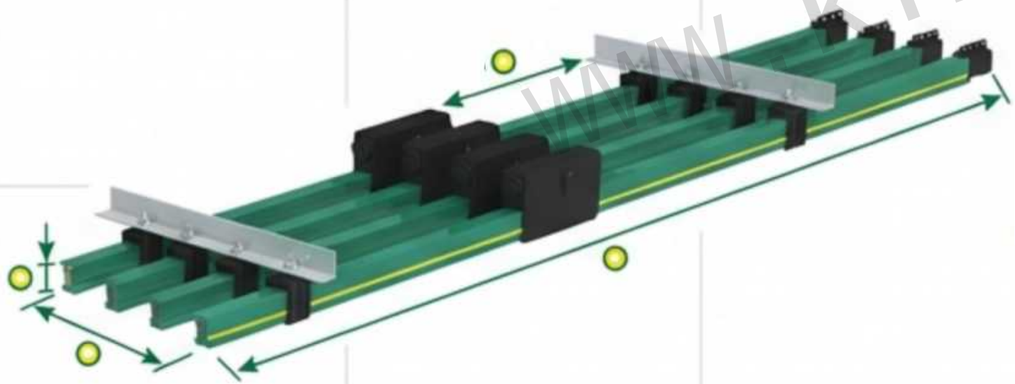
Safety Sheathing

Green/Yellow-Green dual-color housing ensures high visibility and compliance with safety standards.

Inter JDC-H Series Portfolio

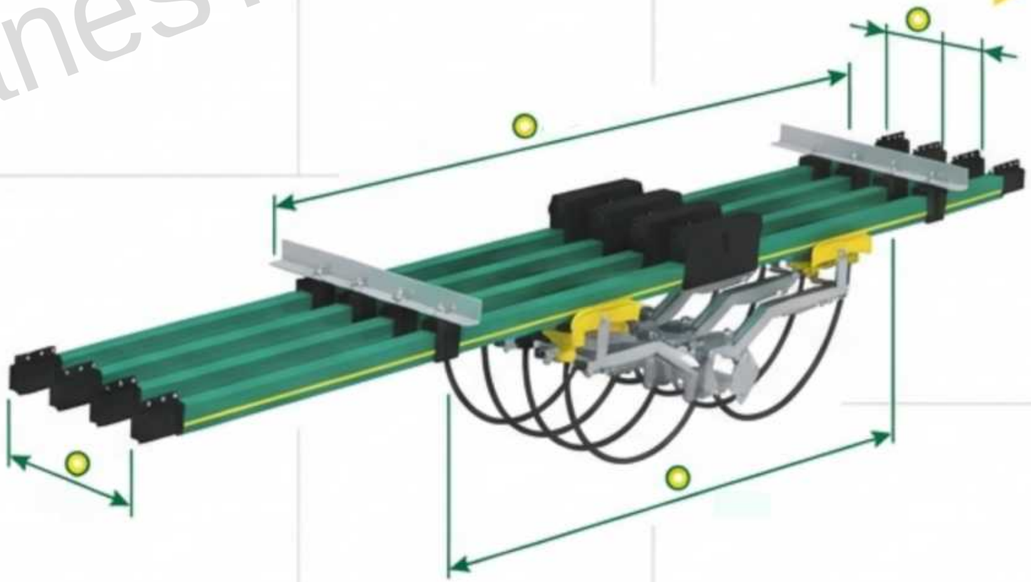
Scalable solutions from automated warehousing to heavy port machinery.

STEP 1: LIGHT & MEDIUM LOAD



H24 Series: Aluminum 250A-300A | Copper 500A-800A
H35 Series: Aluminum 320A-800A
H32 Series: Aluminum 320A-1250A | Copper 800A-1600A

STEP 2: HEAVY DUTY



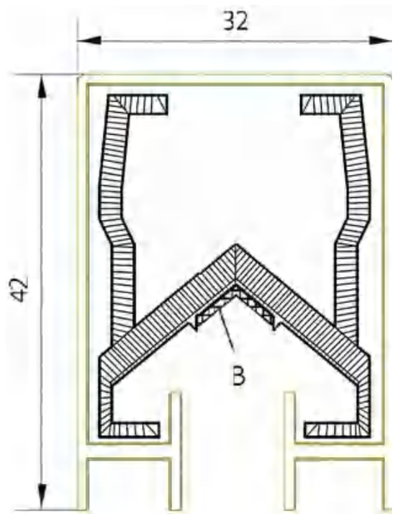
H52 Series: Aluminum 1500A-3000A | Copper 1600A-5000A

Technical Parameters Summary

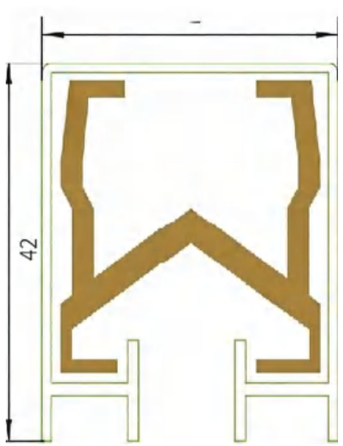
Series	Conductor Material	Normal Current(A)	Application Scope
H19	Copper/Aluminum	150A-300A	Light Automation
H24	Aluminum	250A-300A	General Industry
H24	Copper	500A-800A	General Industry
H35	Aluminum	320A-800A	Medium Load
H32	Copper	320A-1250A	Heavy Machinery
H32	Cooper	800A-1600A	Heavy Machinery
H52	Cooper	1500A-3000A	RTG / Port Cranes
H52	Aluminum	1600A-5000A	RTG / Port Cranes

Refer to the full technical manual for detailed cross-sectional area and pole count configurations.

Technical Parameters - H32 series

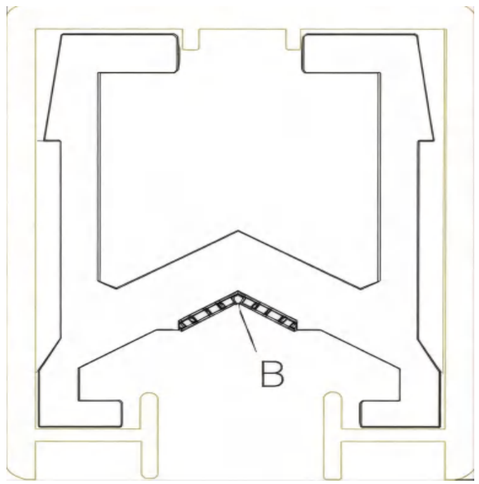


型号Type	导轨材质 Conductormaterial	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	**产品编码 Order-No.**
JDC-H-230/320	铝/Aluminium	230	320	80	0.153	0.96	**320126**
JDC-H-285/500	铝/Aluminium	285	500	80	0.116	1.13	**320136**
JDC-H-360/630	铝/Aluminium	360	630	80	0.087	1.38	**320156**
JDC-H-420/800	铝/Aluminium	450	800	80	0.067	1.50	**320166**
JDC-H-550/1000	铝/Aluminium	550	1000	80	0.058	1.83	**320176**
JDC-H-600/1250	铝/Aluminium	600	1250	80	0.046	2.01	**320186**

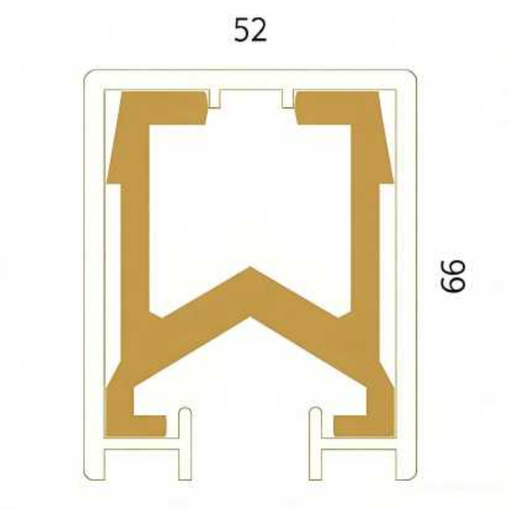


型号Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	产品编码 Order-No.
JDC-HT-230/800	铜/Copper	230	800	80	0.067	2.43	320266
JDC-HT-300/1000	铜/Copper	300	1000	80	0.058	3.05	320276
JDC-HT-360/1250	铜/Copper	360	1250	80	0.046	3.56	320286
JDC-HT-450/1600	铜/Copper	450	1600	80	0.039	4.37	320296

Technical Parameters - H52 series

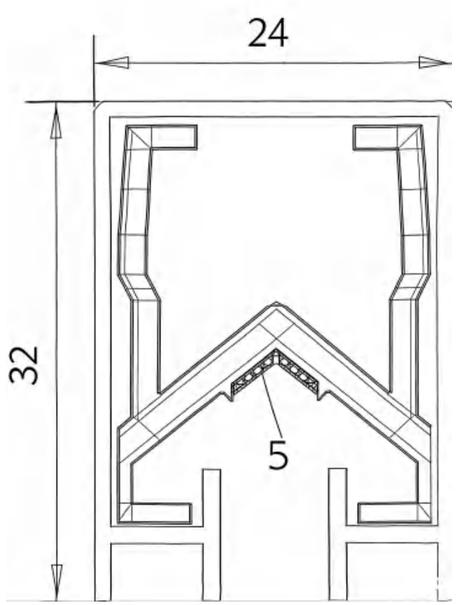


型号 Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(Ω/km) Resistance	每米重量 Weight kg	产品编码 Order-No.
JDC-H-900/1500	铝/Aluminium	900	1500	100	0.039	2.85	390116
JDC-H-1000/1600	铝/Aluminium	1000	1600	100	0.037	3.25	390126
JDC-H-1350/2000	铝/Aluminium	1350	2000	100	0.028	4.32	390136
JDC-H-1600/2500	铝/Aluminium	1600	2500	100	0.018	4.99	390156
JDC-H-2000/3000	铝/Aluminium	2000	3000	100	0.015	6.07	390166

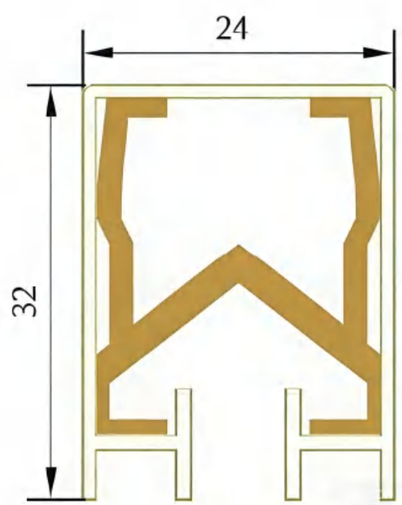


型号 Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(Ω/km) Resistance	每米重量 Weight(kg)	**产品编码 Order-No.**
JDC-HT-700/2000	铜/Copper	700	2000	100	0.026	6.91	**390236**
JDC-HT-850/2500	铜/Copper	850	2500	100	0.018	8.25	**390256**
JDC-HT-1000/3000	铜/Copper	1000	3000	100	0.011	9.65	**390266**
JDC-HT-1200/3500	铜/Copper	1200	3500	100	0.009	11.42	**390276**
JDC-HT-1600/4500	铜/Copper	1600	4500	100	0.008	14.99	**390286**
JDC-HT-1800/5000	铜/Copper	1800	5000	100	0.007	16.75	**390296**

Technical Parameters - H24 series

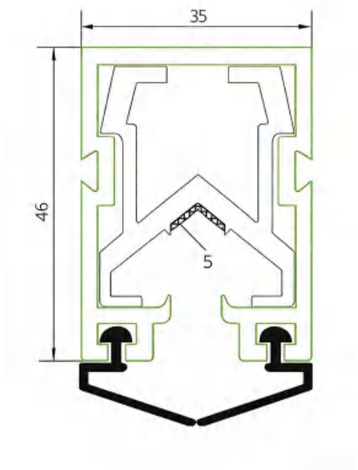


型号 Type	导轨材质 Conductormaterial	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	产品编码 Order-No.
JDC-H-160/250	铝/Aluminium	160	250	45 or 80	0.203	0.63	240126
JDC-H-180/300	铝/Aluminium	180	300	45 or 80	0.187	0.71	240136

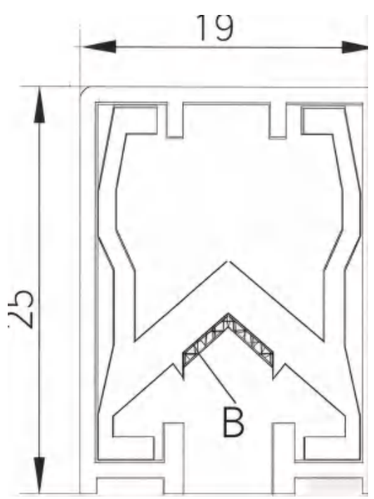


型号 Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	**产品编码 Order-No.**
JDC-HT-160/500	铜/Copper	160	500	45 or 80	0.112	1.68	**240256**
JDC-HT-180/600	铜/Copper	180	600	45 or80	0.098	1.86	**240266**
JDC-HT-200/700	铜/Copper	200	700	45 or 80	0.087	2.04	**240276**
JDC-HT-230/800	铜/Copper	230	800	45 or80	0.076	2.30	**240286**

Technical Parameters - H35 series



型号 Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	产品编码 Order-No.
JDC-HE-230/320	铝/Aluminium	230	320	80	0.153	0.96	350126
JDC-HE-285/500	铝/Aluminium	285	500	80	0.116	1.79	350136
JDC-HE-360/600	铝/Aluminium	360	600	80	0.087	2.04	350156
JDC-HE-420/800	铝/Aluminium	420	800	80	0.067	2.16	350166

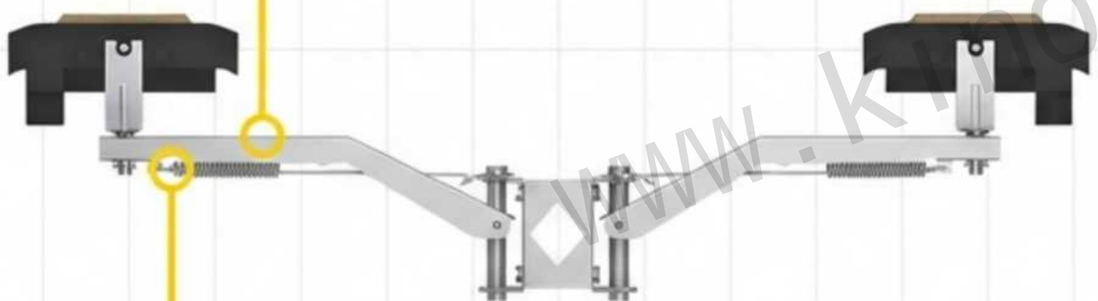


型号 Type	导轨材质 Conductor material	截面积(mm²) Cross section	额定载流量(A) Nominal current	每相间距(mm) Leakage-distance	电阻(2/km) Resistance	每米重量 Weight kg	产品编码 Order-No.
JDC-H-100/150	铝/Aluminium	100	150	35 or 80	0.376	0.46	190135
JDC-HT-110/300	铜/Copper	110	300	35 or 80	0.195	1.15	190275
JDC-HT-130/500	铜/Copper	130	500	35 or80	0.156	1.33	190285

Precision Power Collection

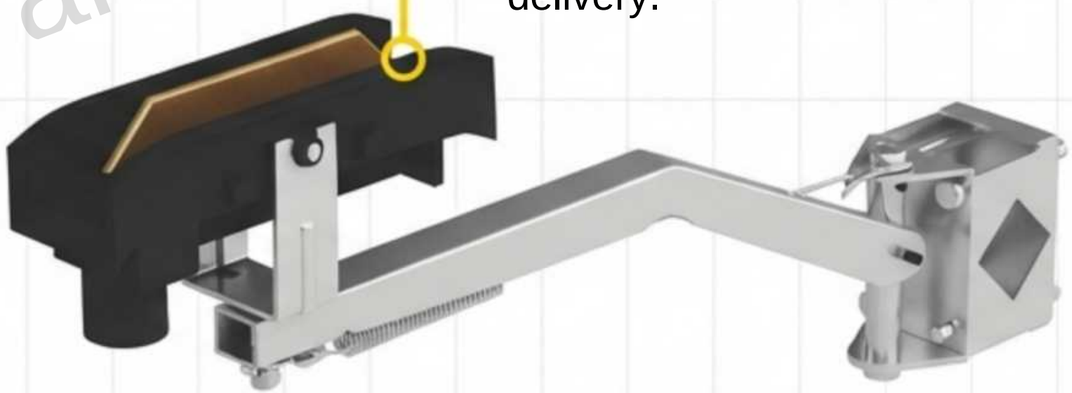
Stable contact and low-friction transmission

Dual-Spring Mechanism: Maintains consistent pressure on the rail, preventing sparking during high-speed movement.



Carbon Brushes: High-durability graphite components designed for minimal friction and easy replacement.

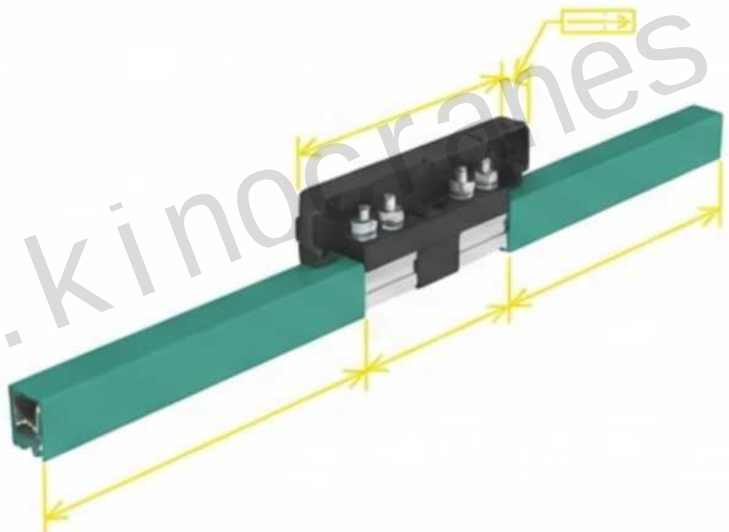
Stable Operation: Articulated tow arms absorb vibration, ensuring continuous power delivery.

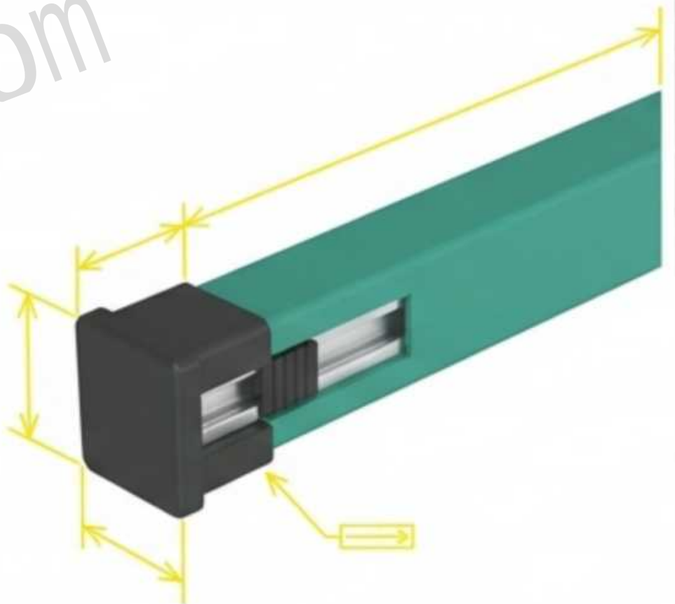


Single Arm Collector: Articulated two arms reduce vibration, ensuring continuous power delivery.

Structural Integrity & Connection

Modular components designed for easy installation and rigid alignment





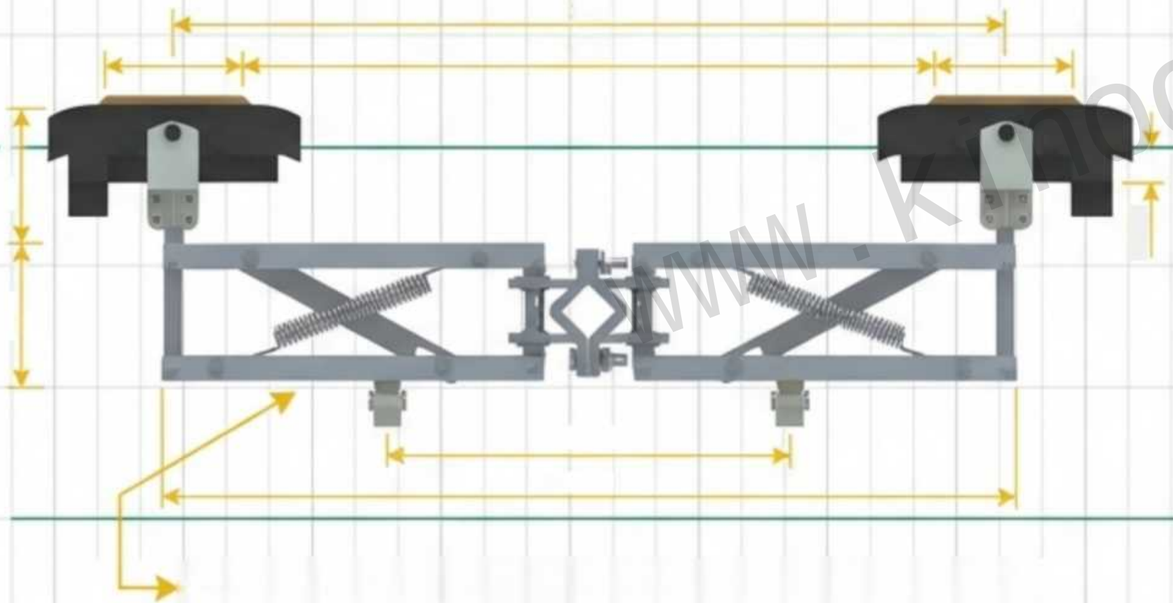
Tow arm: Rigid square-bar mounting brackets ensure precisealignment of the conductor rails.

Jointing Boxes: Robust enclosures protect connections while maintaining full electrical conductivity.

End Caps & Safety: Sealing components that prevent accidental contact and debris ingress.

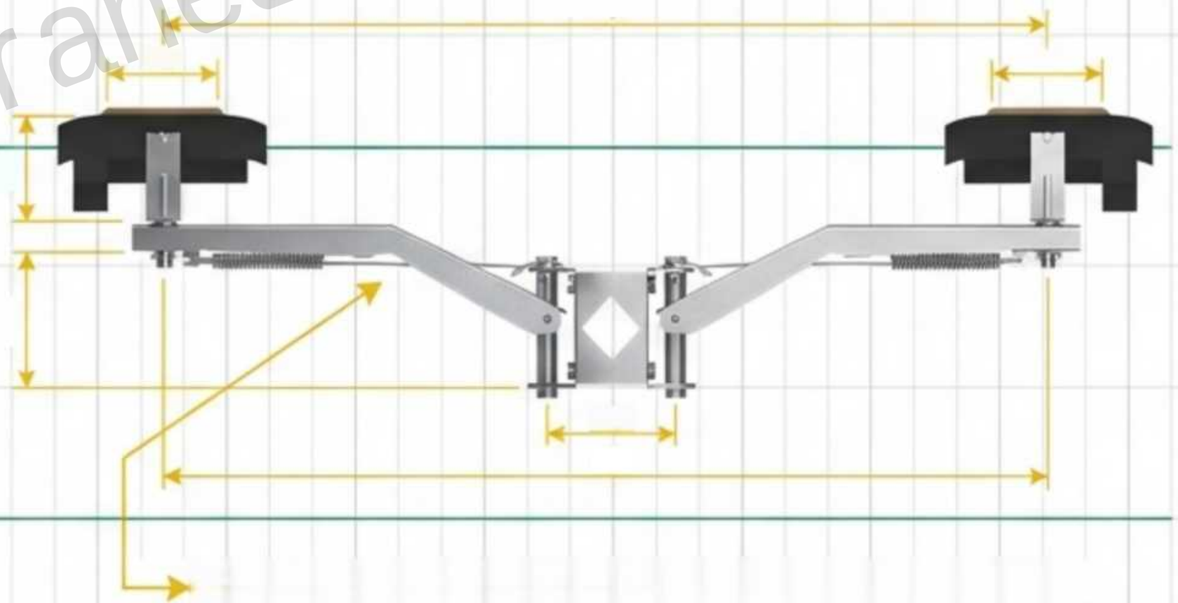
Managing Industrial Physics

Thermal Expansion



Expansion Sections: As ambient temperatures fluctuate, long rail runs expand and contract. This specialized section absorbs thermal growth to prevent buckling and structural stress.

Electrical Isolation



Isolating Sections: Mechanically continuous but electrically segmented, these units allow for distinct power zones essential for maintenance safety and multi-source configurations.

Applications: RTG Electrification

Views of Oil-to-Electricity for RTG

The Challenge

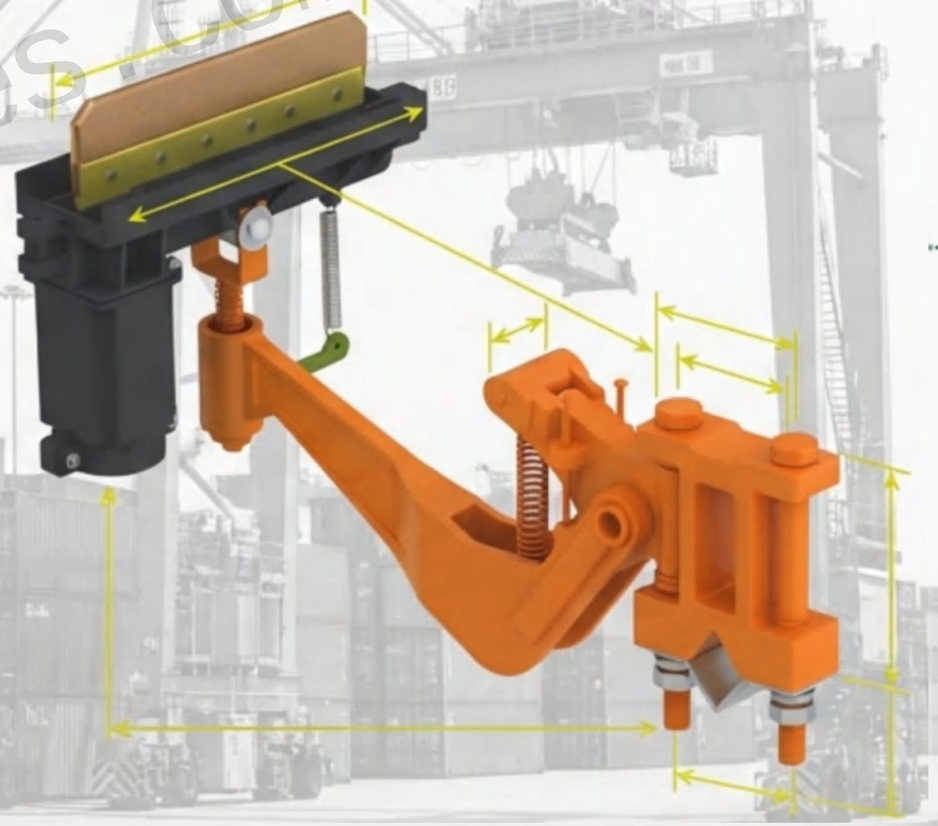
Rubber Tyred Gantry (RTG) cranes traditionally run on diesel, creating high emissions and fuel costs.

The JDC Solution

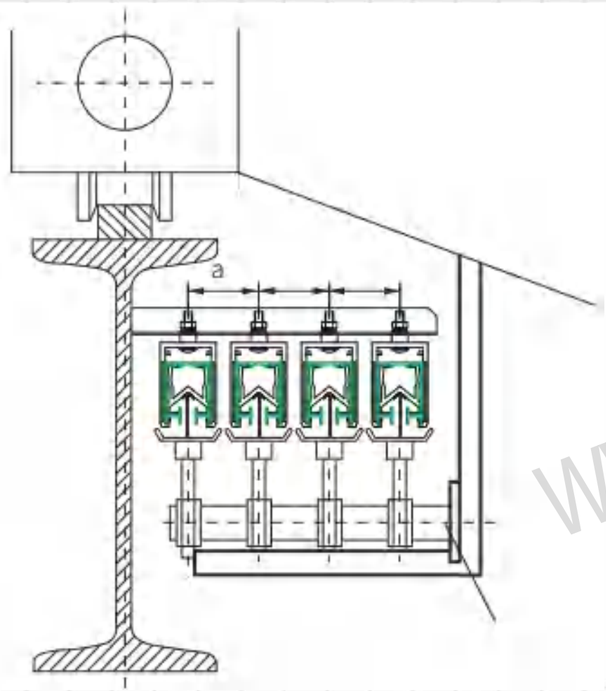
Transitioning to the H52 High-Amperage Series (up to 5000A) enables a full Oil to Electricity conversion.

The Impact

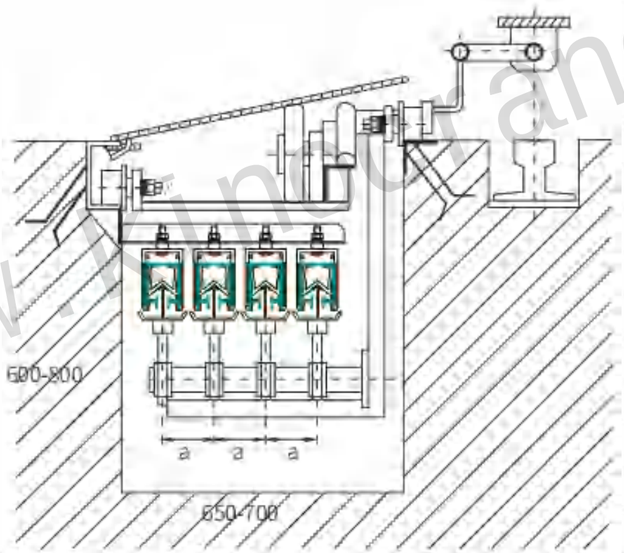
Green energy compliance, reduced noise, and lower operational costs.



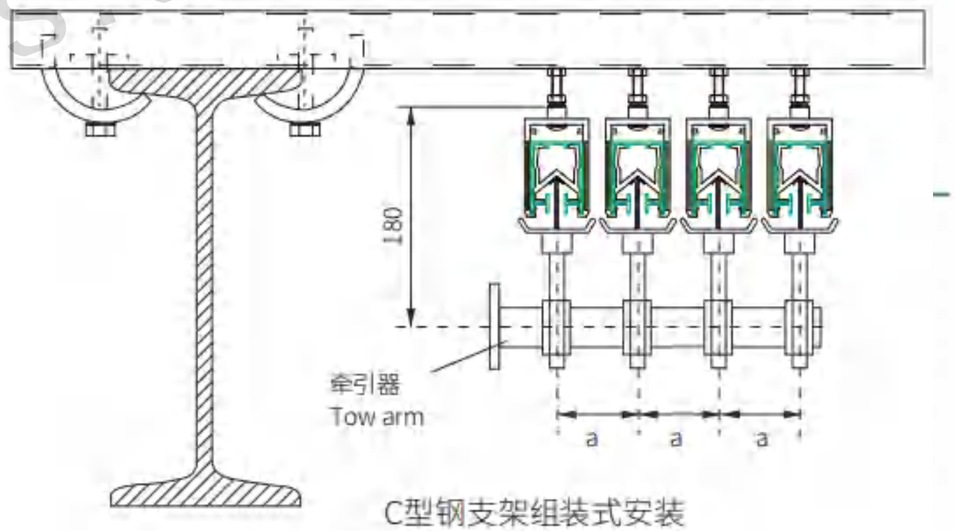
Versatile Installation Configurations



Horizontal operation of powerail welding on Angle steel bracket



Trench installation



SplitingonC-Trackbracket

Certified Excellence

Engineered for the future of industrial power

Optimized Joints.

Stable Operation.

Wide Adaptability.

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