Catalog for Electric Locomotive

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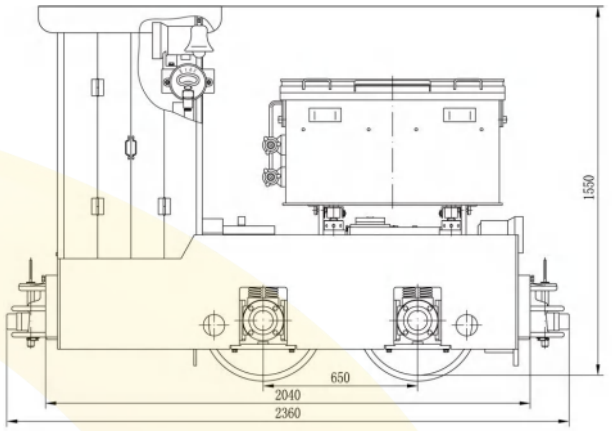
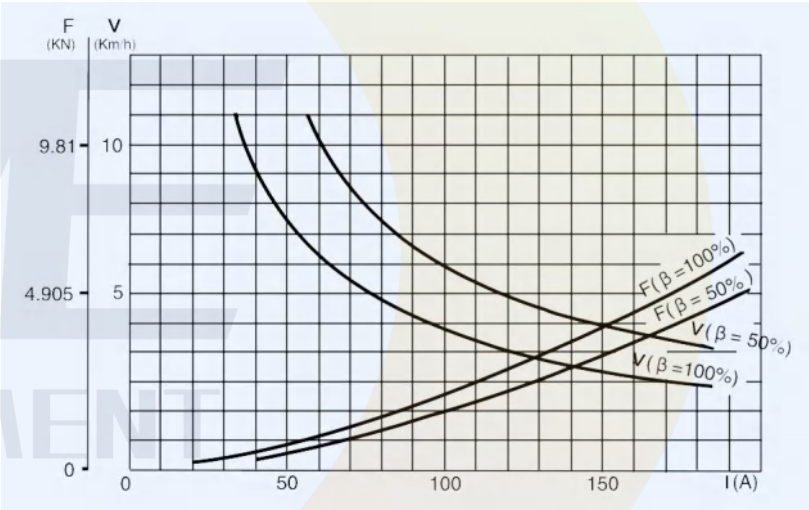
2.5T Battery Locomotive CTY2.5



Model Name		CTY2.5/6, 7, 9G(B)
Adhesive Weight		2.5 tons
Track Gauge		600, 762 or 900mm
Traction		2.55kN
Max. Traction		6.13kN
Speed		4.54km/h
Power Supply Device	Voltage	48V
	Capacity	330Ah
Power		3.5kW*1
Dimensions	Length	2360mm
	Width	914, 1076 or 1214mm
	Height	1550mm
	Wheelbase	650mm
	Wheel Diameter	Φ460mm
Min. Turning Radius		5m
Controller		Resistance or IGBT
Brake		Mechanical Brake



Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQB-4	3.5	42	105	960	210	2400	137

Chassis Constructed in welded steel and suspended by spring on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and step less speed regulation, they have an electronic speed controller with high reliability.

Brakes Mechanical drum brake to the coupler.

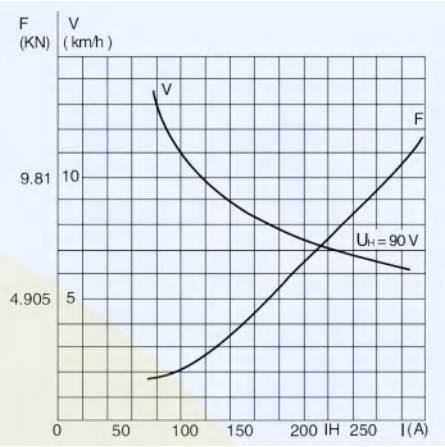
Sanders Mechanical sanding system to the rails.

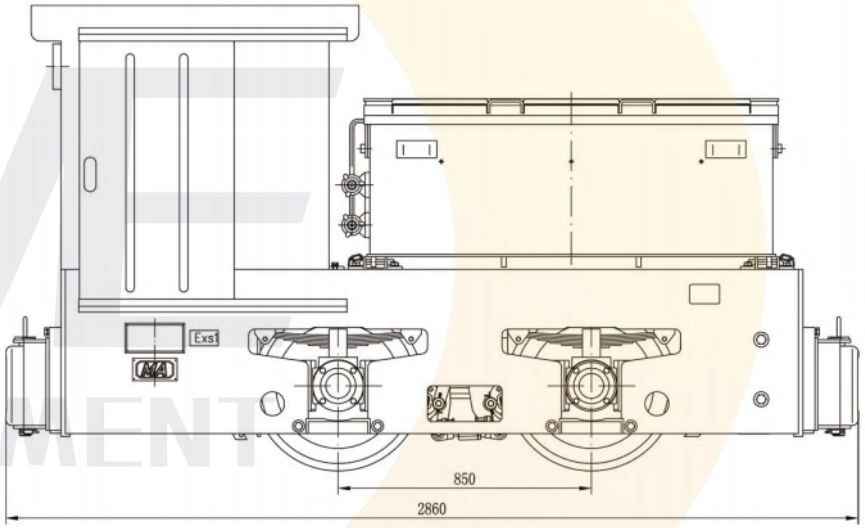
Battery The battery housing is constructed in steel plating with an interior anti-acid covering. Each device has 24 pcs series storage lead- acid batteries.

Buffers The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collision.

5T Battery Locomotive CTY5

Model Name		CTY5/6, 7, 9G（B）
Adhesive Weight		5 tons
Track Gauge		600, 762 or 900mm
Traction		7.06kN
Max. Traction		12.26kN
Speed		7km/h
Power Supply Device	Voltage	90V
	Capacity	385Ah
Power		7.5 kW*2
Dimensions	Length	2860mm
	Width	920, 1082 or 1220mm
	Height	1550mm
	Wheelbase	850mm
	Wheel Diameter	Φ520mm
Min. Turning Radius		6m
Controller		Resistance or IGBT
Brake		Mechanical Brake





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQB-8	7.5	84	111	1130	222	2400	170

Chassis Constructed in welded steel and suspended by leaf spring on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and step less speed regulation, they have an electronic speed controller with high reliability.

Brakes Mechanical brake to the four wheels by brake shoes.

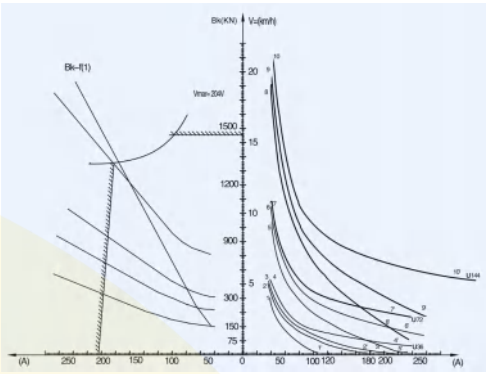
Sanders Pneumatic sanding system to the rails.

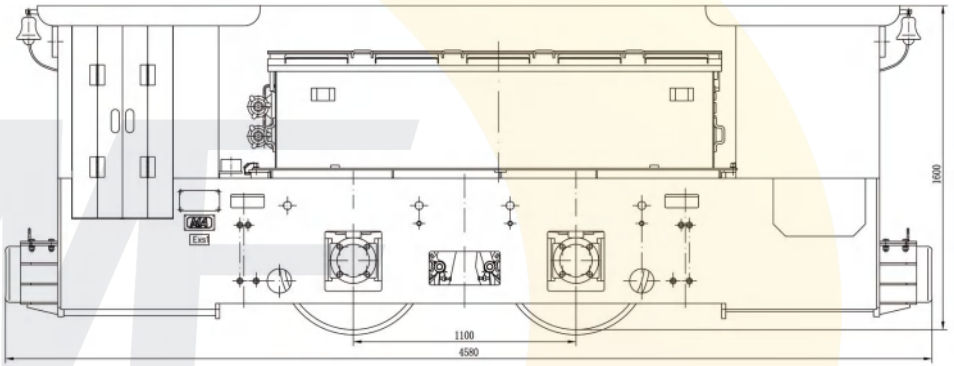
Battery The battery housing is constructed in steel plating with an interior anti-acid covering. Each device has 45 pcs series storage lead- acid batteries.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with spring

8T Battery Locomotive CTY(L)8

Model Name		CTY(L)8/6,7,9G(B)				
Adhesive Weight		8 tons				
Track Gauge		600, 762 or 900mm				
Traction		11.18kN		12.83kN		
Max. Traction		19.62k				
Speed		6.2km/h	7.5 km/h	7.8 km/h		
Power Supply Device	Voltage	110V	132V	140V	144V	
	Capacity	440Ah				
Power		11kW*2		15kW*2		
Dimensions	Length	4430mm		4420mm		
	Width	1054, 1356 or 1356mm				
	Height	1600mm		1600mm		
	Wheelbase	1100mm		1150mm		
	Wheel Diameter	Φ680mm				
Min. Turning Radius		7m				
Controller		IGBT or AC converter				
Brake		Pneumatic and Mechanical Brake				





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQB-11	11	120	112	370	224	1300	485
ZBQ-15	15	130	136	1060	272	2230	362

Chassis Constructed in welded steel and suspended by leaf spring or rubber studs on grease bearing seats with tapered roller bearings.

AC motor Comparing with DC motors, the 3 phases AC motors have no carbon brushes and any other quick-wear parts.

Speed control In order to achieve continuous and step less speed regulation, they have an electronic speed controller with high reliability.The AC converters convert the DC from batteries into AC and the controller adjusts the speed of AC motors by the power frequency of the AC converter.

Double cabs type The 8T battery locomotives have double cabs type. This type have better field of vision for the operators.

Brakes Pneumatic brake to the four wheels by brake shoes. Stop brake by manual mechanical brake.

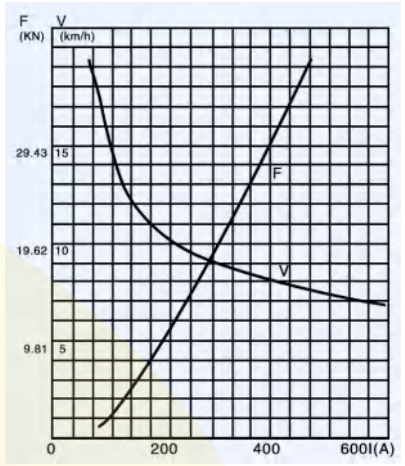
Sanders Pneumatic (or mechanical) sanding system to the rails.

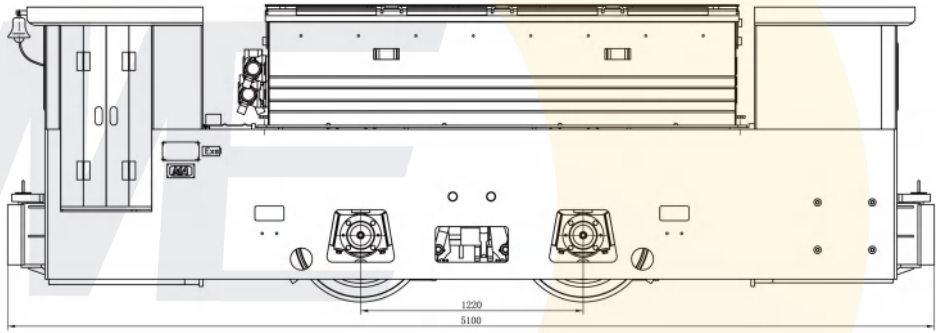
Battery The battery housing is constructed in steel plating with an interior anti-acid covering. Each device has 55 to 72 pcs series storage lead-acid batteries.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with spring.

12T Battery Locomotive CTY(L)12

Model Name		CTY(L)12/6, 7, 9G(B)
Adhesive Weight		12 tons
Track Gauge		600, 762 or 900mm
Traction		16.48kN
Max. Traction		29.43kN
Speed		8.7km/h
Power Supply Device	Voltage	192V
	Capacity	560Ah
Power		22kW*2
Dimensions	Length	5100mm
	Width	1050, 1212 or 1350mm
	Height	1600mm
	Wheelbase	1220mm
	Wheel Diameter	Φ680mm
Min. Turning Radius		10m
Controller		IGBT or AC converter
Brake		Pneumatic and Mechanical Brake





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQB-22	22	180	144	1190	288	2400	410

Chassis Constructed in welded steel and suspended by leaf spring or rubber studs on grease bearing seats with tapered roller bearings.

AC motor Comparing with DC motors, the 3 phases AC motors have no carbon brushes and any other quick-wear parts.

Speed control In order to achieve continuous and step less speed regulation, they have an electronic speed controller with high reliability. The AC converters convert the DC from batteries into AC and the controller adjusts the speed of AC motors by the power frequency of the AC converter.

Double cabs type The 12T battery locomotives have double cabs type. This type have better field of vision for the operators.

Brakes Pneumatic brake to the four wheels by brake shoes. Stop brake by manual mechanical brake.

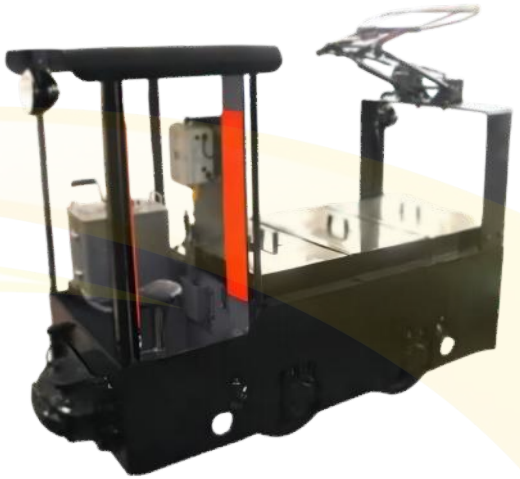
Sanders Pneumatic (or mechanical) sanding system to the rails.

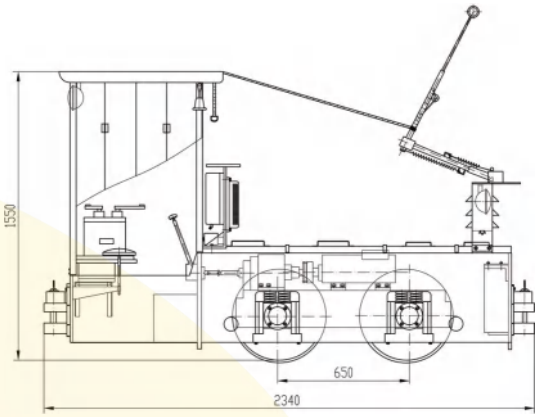
Battery The battery housing is constructed in steel plating with an interior anti-acid covering. Each device has 96 pcs series storage lead- acid batteries.

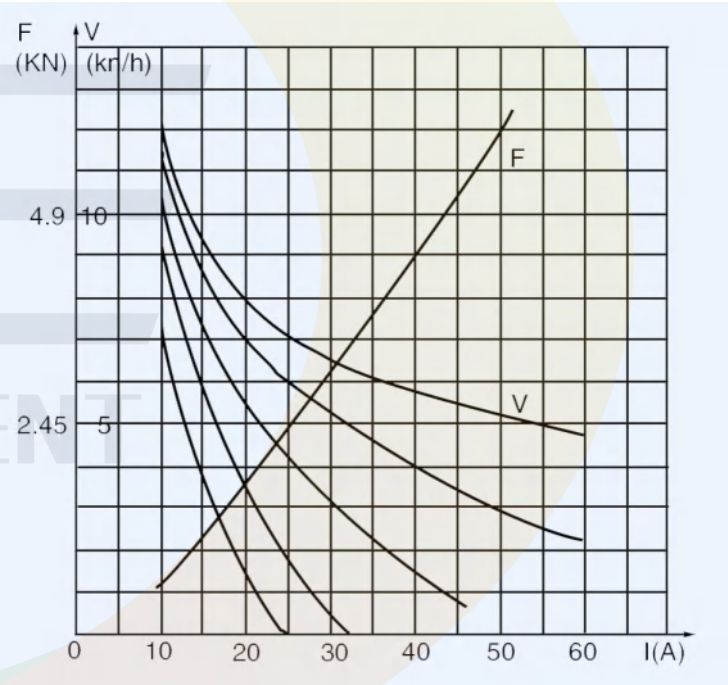
Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with springs.

1.5T Trolley Locomotive

Model Name		CJY1.5/6, 7, 9G	
Adhesive Weight		1.5 tons	
Track Gauge		600, 762 or 900mm	
Traction		2.55kN	3.24kN
Max. Traction		3.68kN	
Speed		4.54km/h	6.6km/h
DC Voltage		100V	250V
Power		3.5kW*1	6.5kW*1
Dimensions	Length	2340mm	2370mm
	Width	950, 1076or 1100mm	
	Height	1550mm	
	Wheelbase	650mm	
	Wheel Diameter	Φ460mm	
	Pantograph	1600~2000mm	1800~2000mm
Min. Turning Radius		5m	
Controller		Resistance or IGBT	
Brake Model		Mechanical Brake	







Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQ-4	3.5	42	105	960	210	2400	134
ZQ-7	6.5	250	31.5	1190	63	2500	165

Chassis Constructed in welded steel and suspended by spring on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and stepless speed regulation, they have an electronic speed controller with high reliability.

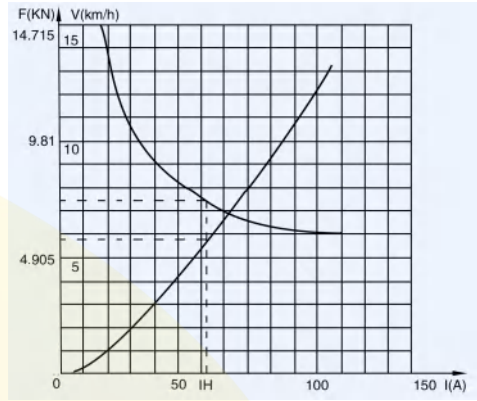
Brakes Mechanical drum brake to the coupler.

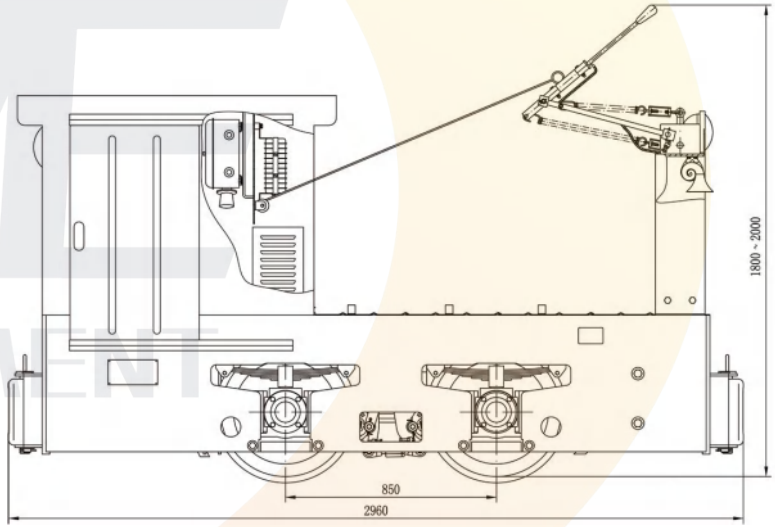
Sanders Mechanical sanding system to the rails.

Buffers The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions.

3T Trolley Locomotive

Model Name		CJY3/6, 7, 9G	
Adhesive Weight		3 tons	
Track Gauge		600, 762 or 900mm	
Traction		6.1kN	5.74kN
Max. Traction		7.36kN	
Speed		10.6km/h	7.5km/h
DC Voltage		250V	
Power		12kW*1	6.5kW*2
Dimensions	Length	2700mm	2750mm
	Width	940, 1082 or 1220mm	
	Height	1550mm	
	Wheelbase	816mm	850 mm
	Wheel Diameter	Φ650mm	Φ520 mm
	Pantograph	1800~2000mm	
Min. Turning Radius		5.7m	6m
Controller		Resistance or IGBT	
Brake Model		Mechanical Brake	





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQ-12	12.2	250	58	480	116	1400	480
ZQ-7	6.5	250	31.5	1190	63	2500	165

Chassis Constructed in welded steel and suspended by leaf spring on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and stepless speed regulation, they have an electronic speed controller with high reliability.

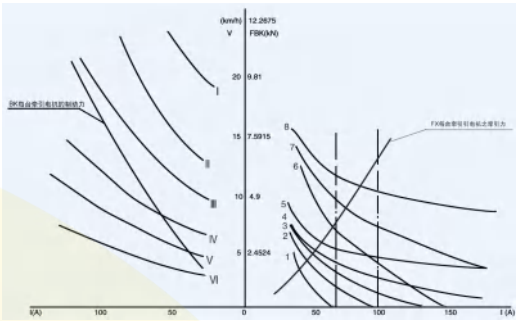
Brakes Mechanical brake to the four wheels by brake shoes.

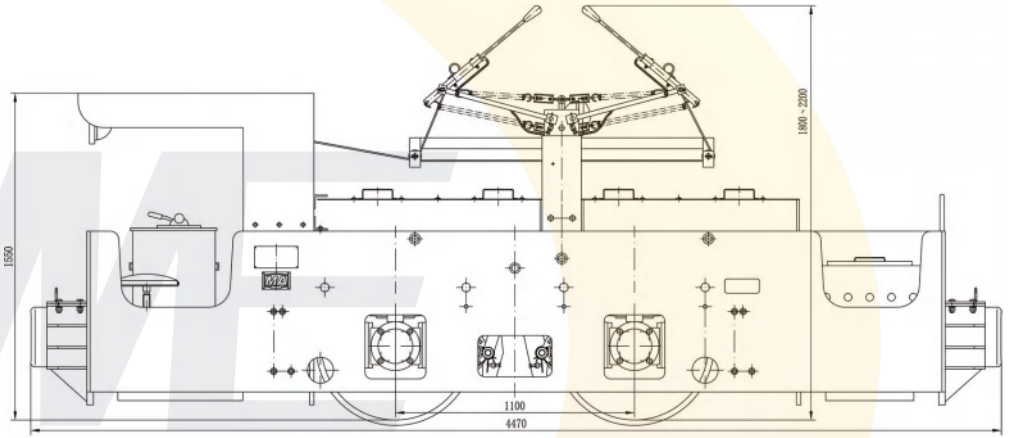
Sanders Pneumatic sanding system to the rails.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with springs.

7T Trolley Locomotive

Model Name		CJY7/6, 7, 9G	
Adhesive Weight		7 tons	
Track Gauge		600, 762 or 900mm	
Traction		13.05kN	15.09kN
Max. Traction		17.2kN	
Speed		11km/h	
DC Voltage		250V	550V
Power		21kW*2	24kW*2
Dimensions	Length	4470mm	
	Width	1054, 1216 or 1354mm	
	Height	1550mm	
	Wheelbase	1100mm	
	Wheel Diameter	Φ680mm	
	Pantograph	1800~2200mm	
Min. Turning Radius		7m	
Controller		Resistance, IGBT or AC converter	
Brake Model		Mechanical Brake	





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm.	
	kW	V	A	r/min	A	r/min	kg
ZQ-21	20.6	250	95	600	190	1400	525
ZQ-24	24	550	50.5	600	101	1400	545

Chassis Constructed in welded steel and suspended by leaf spring or rubber studs on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and stepless speed regulation, they have an electronic speed controller with high reliability.The AC converters convert the DC from trolley line into AC and the controller adjusts the speed of AC motors by the power frequency of the AC converter.

AC motor Comparing with DC motors, the 3 phases AC motors have no carbon brushes and any other quick-wear parts.

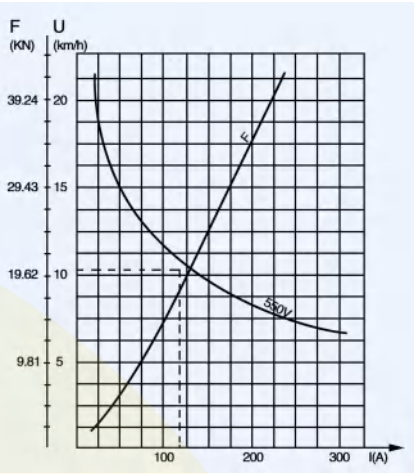
Brakes Pneumatic brake to the four wheels by brake shoes. Stop brake by manual mechanical brake.

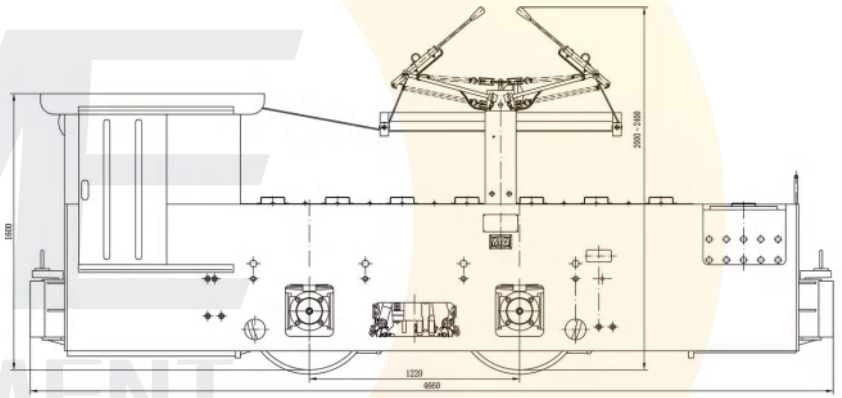
Sanders Pneumatic (or mechanical) sanding system to the rails.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with springs.

10T Trolley Locomotive

Model Name		CJY10/6, 7, 9G			
Adhesive Weight		10 tons			
Track Gauge		600, 762 or 900mm			
Traction		13.05kN		18.93kN	
Max. Traction		24.5kN			
Speed		11km/h		10.5 km/h	
DC Voltage		250V		550V	
Power		21kW*2	30kW*2	24kW*2	30kW*2
Dimensions	Length	4456mm			
	Width	1054, 1212 or 1350mm			
	Height	1550mm			
	Wheelbase	1100mm		1220mm	
	Wheel Diameter	Φ680mm			
	Pantograph	1800~2200mm			
Min. Turning Radius		7m		10m	
Controller		Resistance, IGBT or AC converter			
Brake Model		Mechanical Brake and Pneumatic Brake			





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm.	
	kW	V	A	r/min	A	r/min	kg
ZQ-21	20.6	250	95	600	190	1400	525
ZQ-30	30	250	135	1435	270	3014	400
ZQ-24	24	550	50.5	600	101	1400	545
ZQ-30-2	30	550	61	1435	122	3014	410

Chassis Constructed in welded steel and suspended by leaf spring or rubber studs on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and stepless speed regulation, they have an electronic speed controller with high reliability.The AC converters convert the DC from trolley line into AC and the controller adjusts the speed of AC motors by the power frequency of the AC converter.

AC motor Comparing with DC motors, the 3 phases AC motors have no carbon brushes and any other quick-wear parts.

Double cabs type The10T trolley locomotives have double cabs type. This type have better field of vision for the operators.

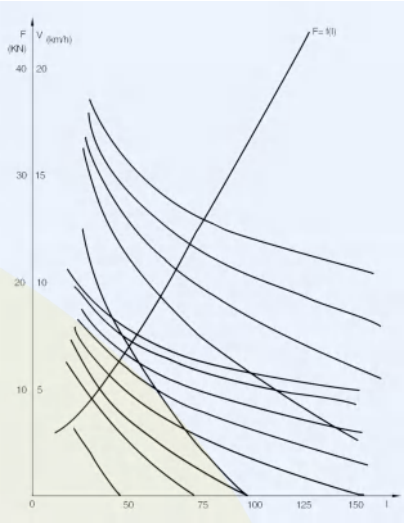
Brakes Pneumatic brake to the four wheels by brake shoes. Stop brake by manual mechanical brake.

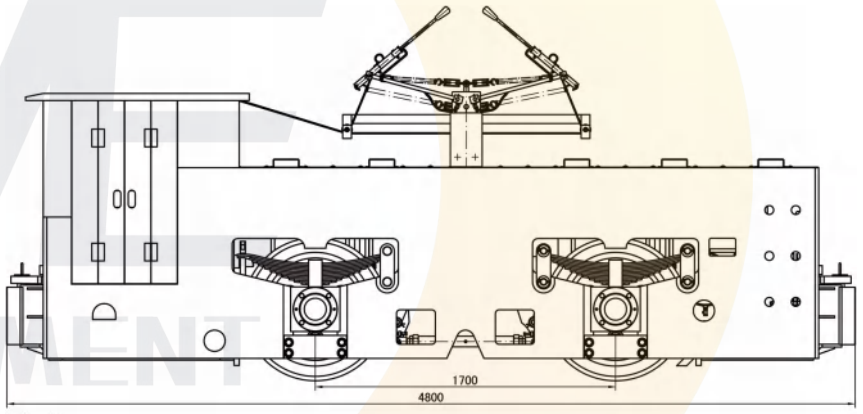
Sanders Pneumatic (or mechanical) sanding system to the rails.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, the motor is suspended from the chassis by a brace with springs.

14T Trolley Locomotive

Model Name		CJY14/6,7,9G	
Adhesive Weight		14 tons	
Track Gauge		600,762 or 900mm	
Traction		26.68kN	
Max.Traction		34.3kN	
Speed		12.87km/h	
DC Voltage		250V	550V
Power		52kW*2	52kW*2
Dimensions	Length	4800mm	
	Width	1050,1350 or 1212mm,1350mm	
	Height	1700mm	
	Wheelbase	1700mm	
	Wheel Diameter	Φ760mm	
	Pantograph	2000~3200mm	
Min.Turning Radius		12m	
Controller		Resistance,IGBT or AC converter	
Brake Model		Mechanical Brake and Pneumatic Brake	





Electric Motor

Model	Rating Data				Max. Data		Weight
	Power	Voltage	Current	rpm.	Current	rpm	
	kW	V	A	r/min	A	r/min	kg
ZQ-52	52	550	106	1300	212	2800	610
ZQ-52-2	52	250	234	1300	468	2800	605

Chassis Constructed in welded steel and suspended by leaf spring or rubber studs on grease bearing seats with tapered roller bearings.

Speed control In order to achieve continuous and stepless speed regulation, they have an electronic speed controller with high reliability.The AC converters convert the DC from trolley line into AC and the controller adjusts the speed of AC motors by the power frequency of the AC converter.

AC motor Comparing with DC motors, the 3 phases AC motors have no carbon brushes and any other quick-wear parts.

Center cab type The 14T trolley locomotives have center cabs type. This type have better field of vision for the operators.

Brakes Pneumatic brake to the four wheels by brake shoes. Stop brake by manual mechanical brake.

Sanders Pneumatic (or mechanical) sanding system to the rails.

Buffers and motor suspension The locomotive has two buffers with spring shock absorbers to achieve complete shock absorption against collisions. Equally, The motor is suspended from the chassis by a brace with springs.

Charger

Model	AC Input Voltage V	DC Output		Application of Locomotive Model	Note
		A	V		
ZKC-90/290	380/660/1140	90A	40-72V	2.5t	General type
			60-120V	5t	
			100-190V	8t(110、132V)	
			110-210V	8t(140、144V)	
			140-290V	12t	
ZBC-90/280	380/660/1140	90A	71V	2.5t	Anti-explosion type
			132V	5t	
			162V	8t(110V)	
			194V	8t(132V)	
			210V	8t(140、144V)	
			280V	12t	

Rectifier Transformer

Model	AC Input Voltage V	Specification	Rated DC Output		Rectifier Line
			A	V(±5~10%)	
KZL-300/275J	380/660/1140	75/115	75A	115V	Three phase bridge
		100/115	100A	115V	
		150/115	150A	115V	
		100/275	100A	275V	
		200/275	200A	275V	
		300/275	300A	275V	
KZL-300/600J	380/660/1140	100/600	100A	600V	Three phase bridge
		200/600	200A	600V	
		300/600	300A	600V	
		400/600	400A	600V	
		500/600	500A	600V	
		600/600	600A	600V	

DC Traction Motor

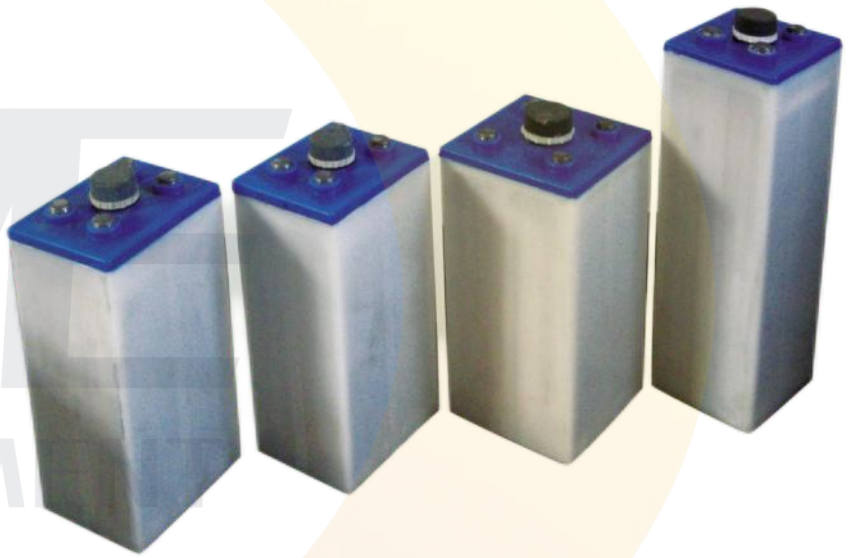
Model	Rated Data				Max. A	Max	Kg
	KW	V	A	r/min			
ZQ-4	3.5	42	105	960	210	2400	134
ZBQ-4	3.5	42	105	960	210	2400	137
ZQ-7	6.5	250	31.5	1190	63	2500	165
ZBQ-8	7.5	84	111	1130	222	2400	170
ZBQ-11	11	120	112	370	224	1300	485
ZBQ-15	15	130	136	1060	272	2230	362
ZQ-21	20.6	250	95	600	190	1400	525
ZBQ-22	22	180	144	1190	288	2400	410
ZQ-24	24	550	50.5	600	101	1400	545
ZQ-30	30	550	61	1435	122	3014	410
ZQ-52	52	550	106	1300	212	2800	610
ZQ-1.9	1.9	550	4.45	1250	6.675	1400	80
ZQ-1.1B	1.1	90	16	1250	24	1400	110

AC Frequency Converter Traction Motor

Model	Rated Data						Frequency Range	Adjustment Range	Rated	Application of Locomotive Model
	KW	V	A	N.m	Hz	r/min				
YVF-7Q	7	175	34.7	45	50	1450	5-100	140-2900	S2-60min	CJY3
YBVF-15Q	15	100	121	95	50	1460	5-100	140-2920	S2-60min	CTY8
YBVF-22Q	22	140	112	140	50	1470	5-100	140-2940	S2-60min	CTY12
YBVF-22Q	22	130	150	350	40	590	4-80	55-1180	S2-60min	CTY10
YVF-22Q	22	180	102	350	40	590	4-80	55-1180	S2-60min	CJY10
YVF-22Q	22	380	42	350	40	590	4-80	55-1180	S2-60min	CJY10
YVF-30Q	30	380	57	191	50	1470	5-100	140-2940	S2-60min	CJY10
YVF-45Q	45	380	84	286	50	1480	5-100	140-2960	S2-60min	CJY14
YVF-75Q	75	225	233	716	51	1000	5-100	140-2000	S2-60min	CJY20
YVF-110Q	110	400	199	1167	40	900	3-80	140-2334	S2-60min	CJY30

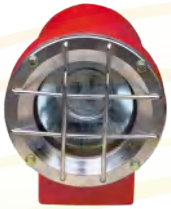
Lead-acid Battery

Model	5Hours Rated Capacity(AH)	Rated Voltage (V)	Max. Dimension			Application of Locomotive Model	Battery Quantity of Every Power Device (PCS)
			Length	Width	Height		
D330KT	330	2	137	181	464	CTY2.5 48V	24
D385KT	385	2	137	181	464	CTY5 90V	45
D330KT	330	2	137	181	464	CTY5 88V	44
D385KT	385	2					
D440KT	440	2	175	181	466	CTY8 110V	55
D440KT	440	2	175	181	466	CTY8 132V	66
D440KT	440	2	175	181	466	CTY8 140V	70
D440KT	440	2	160	208	370	CTY8 144V	72
D560KT	560	2	160	145	580	CTY12 192V	96
D330	330	2	137	181	448	CTY2.5 48V	24
D370	370	2	225	155	450	CTY5 90V	45
D395	395	2	180	136	450	CTY5 90V	45
D440	440	2	176	181	466	CTY8 140V	70
D620	620	2	176	160	490	CTY15 256V	128



Spare Parts

Armature



Anti-explosion Lamp

Axle

Resistor

Bevel Gear

Wheel Set

Spur Gear

Brush Box

IGBT Driver Controller

Leaf spring

Armature Coil

Lord Negative Pole Coil

Power Device

Resistor Driver Controller

Ac converter