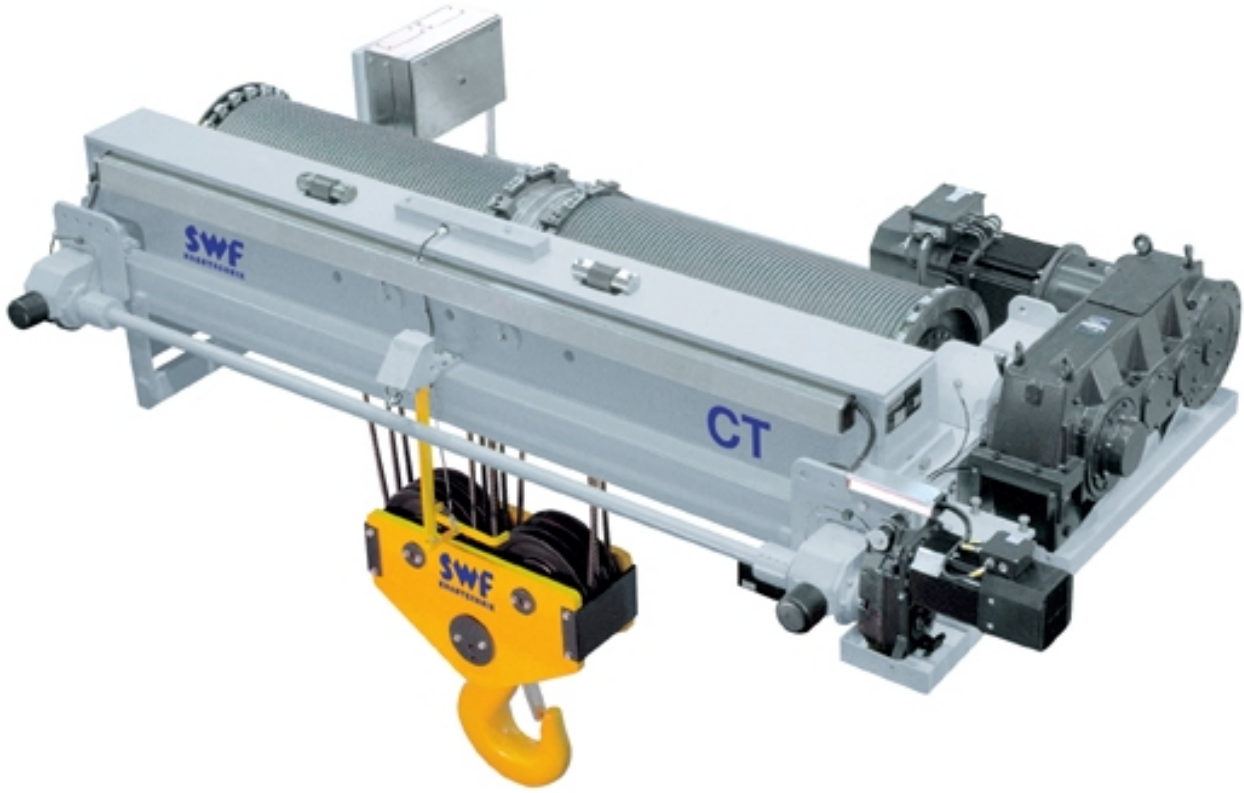


CT - Winch

Technical informations

Description

Hoisting trolleys CT06…CT11, load 4...400 to.

The CT hoisting trolley has been designed to high capacities and most stringent applications, such as process cranes in paper and steel industry, heavy power house applications where loads are lifted infrequently.

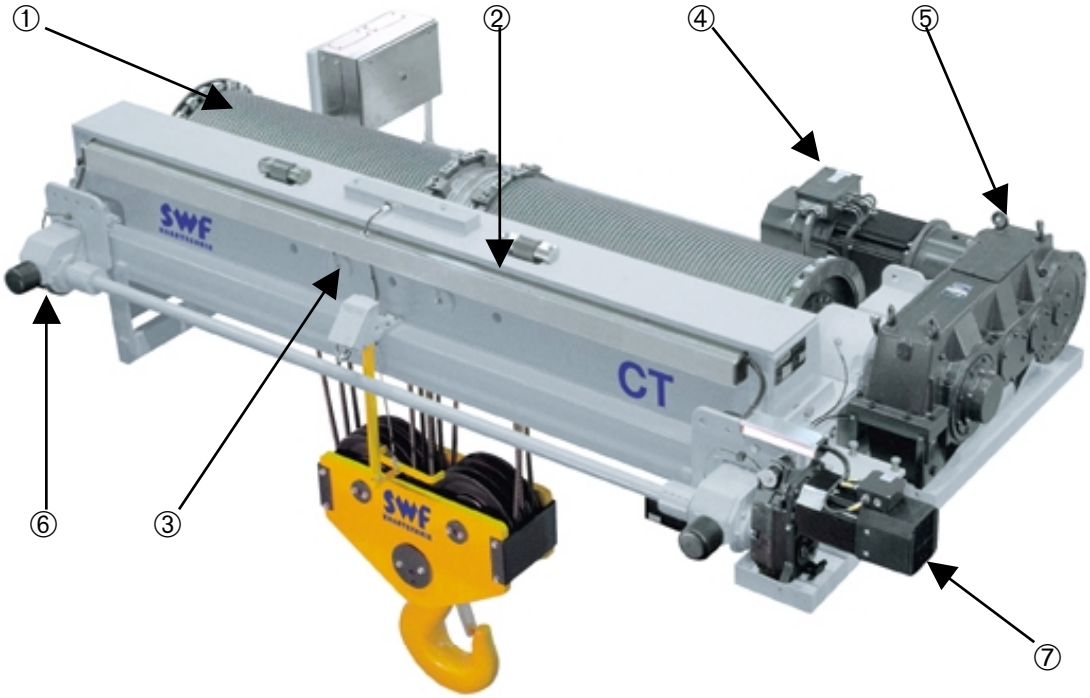
The CT hoisting trolley consists of following components

• The load is carried by the rope drum① and the load beam②. The rope pulleys③ are mounted inside of the load beam, which is fixed to the end carriages with thrust blocks. The load beam is manufactured of Fe52D steel. Proper layering of rope is secured by rope guides.

• The hoisting machinery consists of the hoisting motor④ with the disc brake, the hoisting gear⑤ and the rope drum. The main hoisting motor is provided with class F insulation and imbedded thermistors.

• The end carriages⑥ support the rope drum and the load beam from both sides. The end carriage is equipped with derailment/wheel damage protection and rubber buffers.

• The traversing machinery⑦ is mounted on the intermediate shaft of the driven wheels. It consists of the motor with the brake, the gear box and the connection shaft.



Hoisting machinery

Hoisting motor

Squirrel-cage motor,
Output 15... 110 kW; 40 % ED

Pole-changing squirrel-cage motor,
Output 12/2... 30/5 kW; 40 % ED

Control system

Squirrel-cage drive with stepless Inverter inverter control.

Two speed squirrel-cage pole-changing drive (1:6).

The motor is TEFC (Totally Enclosed Fan Cooled) motor, which meets the IEC specifications. Thermal protection is handled with imbedded thermistors. The motor is manufactured especially for heavy duty hoisting applications.

Hoisting gear CT06...CT09

The case of cylindrical gear is steel Fe52. The shafts and the gear wheels are chrome - molybdenium-nickel alloy steel with ground and hardened teeth. Only antifriction bearings are used.

Hoisting gear CT10…CT11

The gear consists of the one step planetary gear which is mounted inside the rope drum completed with the cylindrical gear box.

The case of planetary gear is cast iron GRP700 and the shafts and gear wheels are chrome-molybdenium-nickel alloy steel with ground and hardened teeth. Only antifriction bearings are used.

The case of cylindrical gear is steel Fe52 and the shaft and the gear wheels are chrome-molybdenium-nickel alloy steel with ground and hardened teeth. Only antifriction bearings are used.

Brake

The electromagnetic single disc brake (dry).
(<M22)

The electromagnetic double disc brake (dry).
(>M22)

Limit switch

The adjustable limit switches limiting the up and down movements of the hook. Overload limit switch is included as standard equipment. Additionaly separate hook operated ultimate limit switch for hoist is provided.

Rope drum

Welded steel tube. The material is Fe52D.

Rope pulleys

The rope pulleys are casted. The material is GRP700.
Only antifriction bearings are used.

Hook

The single or ramshorn hook with safety latches. Thrust bearings are used.

Trolley traversing machinery

Traversing motor

Squirrel-cage motor,
Output 1,1... 11 kW; 40 % ED
2-speed squirrel-cage motor,
Output 1,1/0,35.. 3,7/0,9 kW; 40 % ED
Slip-ring motor,
Output 3...9 kW, 40 % ED

Control system

Squirrel-cage pole-changing motor with thyristor soft starting.
Squirrel-cage motor with stepless inverter control.
The motor is totally enclosed fan cooled motor and meets IEC-specifications. The thermal protection is handled with imbedded thermistors. The motor is designed and manufactured especially for crane applications.

Traversing gear

The gear box type GM is of casted housing. The gear material is chrome-molybdenium-nickel alloy steel with ground and hardened teeth. Helical gears run in an oil bath.

Brake

Electromechanical disc brake

Wheels

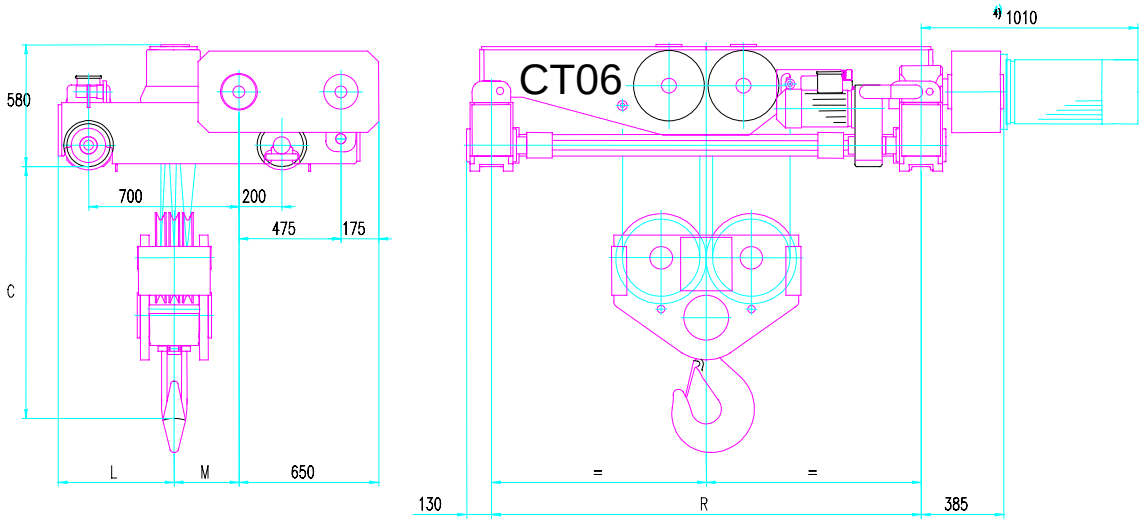
The material is 42CrMo4 + hardened (or GRP700). There are six wheels on a bogie system. CT06 and CT07 four wheels. Two wheels are driven.

Limit switch

2-step lever-type limit switch.

Buffers

Four rubber buffers.

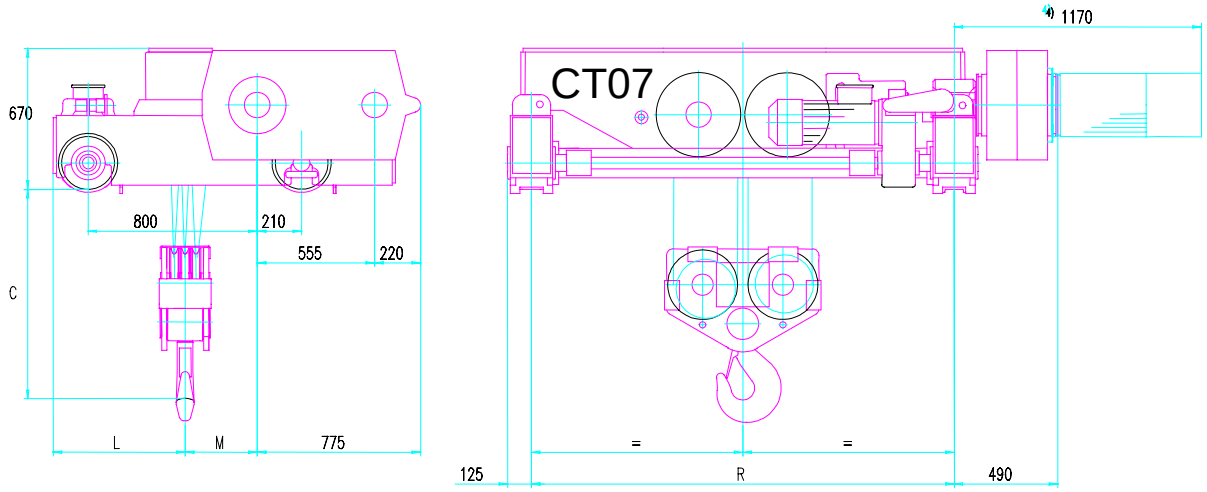


	Dimensions (mm) C [3]	L	M	Rope drum Dd	Wheel Dm
CT0604	785 - 1220	604	237	369	200
CT0608	715 - 1050	571	270		
CT0612	700 - 1005	561	280		

	Load (t)	FEM ISO	Lifting height (m) / Trolley weight (t) [1] / Rail gauge R (mm) 1700	2000	2400	2700	3100	3400	Lifting speed [2] (m/min) N4 = 12/2 kW S3-40%, N5 = 25/4 kW S3-40%, F4 = 15 kW S3-40%, E6 = 22 kW S3-60%, F6 = 37 kW S3-50%, 50 Hz: N5 2xN4	F4	E6	F6	2xE6	Pulley (mm)	Rope (mm)
CT0604	8	2m M5	22,2	28,0	36,2	42,0	50,2	56,0	16/ 2,6	10	14	25	30	293	13
	6,3	3m M6							16/ 2,6	10	19	32	36	293	
	5	4m M7	1,8	1,9	2,0	2,1	2,2	2,3		9,0	23	32	45	364	
	4	5m M8									25	36	45	364	
CT0608	16	2m M5	11,1	14,1	18,1	21,1	25,1	28,1	8/1,3	5,0	7,1	12	12	293	13
	12,5	3m M6							8/1,3	5,0	9,5	16	18	293	
	10	4m M7	1,9	2,0	2,1	2,2	2,3	2,4		4,5	11	16	22	364	
	8	5m M8									12	18	22	364	
CT0612	25	2m M5	7,2	9,2	11,7	13,7	16,7	18,7	5,3/ 0,85	3,0	4,8	8,0	8,5	293	13
	20	3m M6							5,3/ 0,85	3,0	4,8	10	11	293	
	16	4m M7	2,1	2,2	2,3	2,4	2,5	2,6		3,0	6,3	10	12	364	
	12,5	5m M8									8,5	12	15	364	

[1] with lifting motor MF16
[2] N4, N5 are polechanging motors, others inverter motors
- several trolley speeds possible
- other models under request

[3] dependent to motor and FEM groupe
[4] 2 x E6 Motor

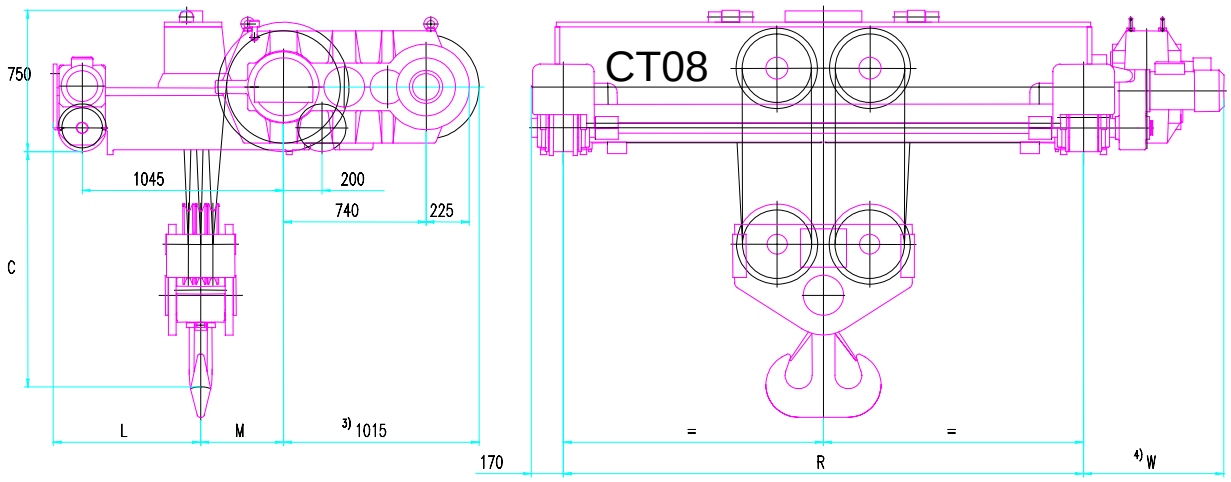


	Dimensions (mm) C [3]	L	M	Rope drum Dd	Wheel Dm
CT0704	845 - 1290	692	274	444	250
CT0708	970 - 1285	653	313		
CT0712	1065 - 1410	634	332		
CT0716	1080	615	394		

	Load (t)	FEM ISO	Lifting height (m) / Trolley weight (t) [1] / Rail gauge R (mm) 2000	2400	2700	3100	3400	3800	4200	Lifting speed [2] (m/min) N4 = 12/2 kW S3-40% N5 = 25/4 kW S3-40% F4 = 15 kW S3-40% E6 = 22 kW S3-60% F6 = 37 kW S3-50% 50 Hz: N5 2xN4	F4	E6	F6	2xE6	2xF6	Pulley (mm)	Rope (mm)
CT0704	16	2m M5	28,0	36,0	42,0	50,0	56,0	64,0	72,0	8/1,3	5,0	7,1	12		25	360	16
	12,5	3m M6								8/1,3	5,0	9,5	16	18	30	360	
	10	4m M7	2,9	3,1	3,2	3,3	3,5	3,7	3,9		4,5	11	16	23	30	450	
	8	5m M8										12	19	28	38	450	
CT0708	32	2m M5	14,0	18,0	21,0	25,0	28,0	32,0	36,0	4/0,6	2,5	3,6	6,3		12	360	16
	25	3m M6								4/0,6	2,5	4,8	8,0	9,0	15	360	
	20	4m M7	3,0	3,2	3,4	3,5	3,7	3,9	4,1		2,3	5,6	8,0	11	15	450	
	16	5m M8										6,3	9,5	14	19	450	
CT0712	50	2m M5	9,4	12,1	14,1	16,8	18,8	21,4	24,0	2,8/ 0,45	1,7	2,4	4,2		8,0	360	16
	40	3m M6								2,8/ 0,45	1,7	3,0	4,8	4,8	10	360	
	32	4m M7	3,4	3,6	3,7	3,9	4,1	4,3	4,5		1,5	3,8	4,8	6,7	10	450	
	25	5m M8										4,2	5,6	8,0	11	450	
CT0716	65	1Am M4	8,1 3,4	10,2 3,7	12,0 3,8	15,2 4,0	16,0 4,2	18,1 4,4	20,4 4,6	2,3/ 0,38	1,3	1,8	3,2		6,0	358	14

[1] with lifting motor MF16
[2] N4, N5 are polechanging motors, others inverter motors
- several trolley speeds possible
- other models under request

[3] dependent to motor and FEM groupe
[4] 2 x E6 Motor

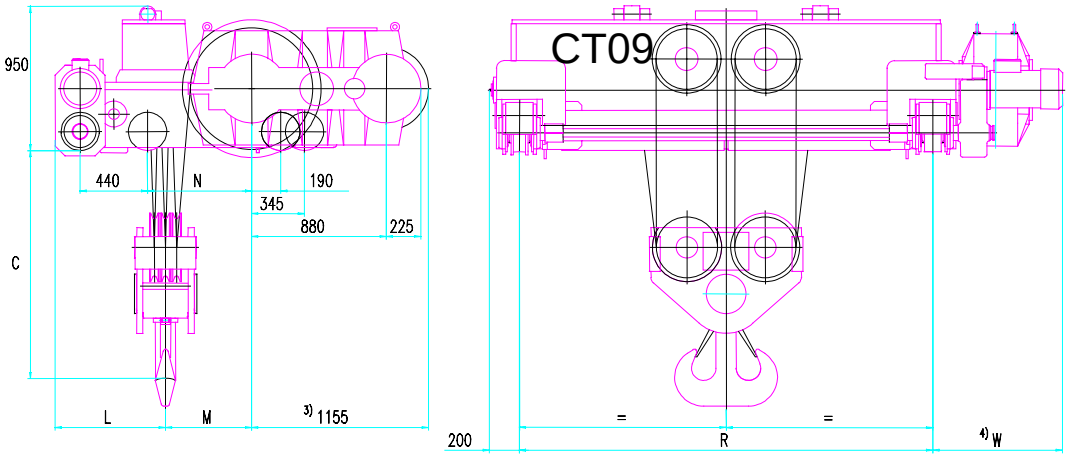


	Dimensions (mm) C [2]	4-Rad L [7]	6-Rad L	M	Rope drum Dd	Wheel Dm
CT0808	1085 - 1200	800	575	395	590	200 [8]
CT0812	1245 - 1550	765	540	430		
CT0816	1280 - 1600	730	595	465		

	Load (t)	FEM ISO	Lifting height (m) Trolley weight (t) [1] Rail gauge R (mm) 2000	2400	2700	3100	3400	3800	4200	4800	5300	Lifting speed [2] (m/min) F5 = 30 kW S3-50% F6 = 37 kW S3-50% F7 = 55 kW S3-40% F9 = 75 kW S3-40% F12 = max. Hubmotor 50Hz F5	F6	F7	F9	F12	Pulley mm	Rope mm
CT0808	50	1Am M4										3,0	3,6	6,3	8,0	12	360	
	40	2m M5	14,6	18,8	21,9	26,2	29,3	33,5	37,7	44,1	49,1	3,8	5,3	6,7	9,5	15	400	
	32	3m M6										3,8	6,0	9,5	12	18	448	20
	25	4m M7	3,4	3,7	4,0	4,3	4,6	5,0	5,3	5,6	6,0	3,8	6,0	9,5	12	21	504	
	20	5m M8											7,5	12	15	28	560	
CT0812	80	1Am M4										2,0	2,5	3,8	4,5	7,1	360	
	63	2m M5	9,7	12,5	14,5	17,4	19,5	22,3	25,1	29,4	32,7	2,3	3,2	4,5	6,3	9,0	400	
	50	3m M6										2,3	4,0	5,6	8,0	12	448	20
	40	4m M7	3,8	4,1	4,4	4,7	5,0	5,4	5,7	6,1	6,4	2,3	4,0	5,6	8,0	14	504	
	32	5m M8											4,5	7,1	10	18	560	
CT0816	100	1Bm M3	8,1 4,0	10,4 4,3	12,1 4,6	14,5 4,9	16,2 5,2	18,5 5,6	20,8 5,9	24,3 6,3	27,2 6,6	1,5	1,8	2,8	4,0	5,6	360	18

[1] FEM 1Bm and without service platform
[2] C-dimension dependent to FEM groupe and rail gauge
[3] with biggest lifting motor
[4] w dependent to trolley motor size
- several trolley speeds possible
- other models under request (CT0804-CT0810)

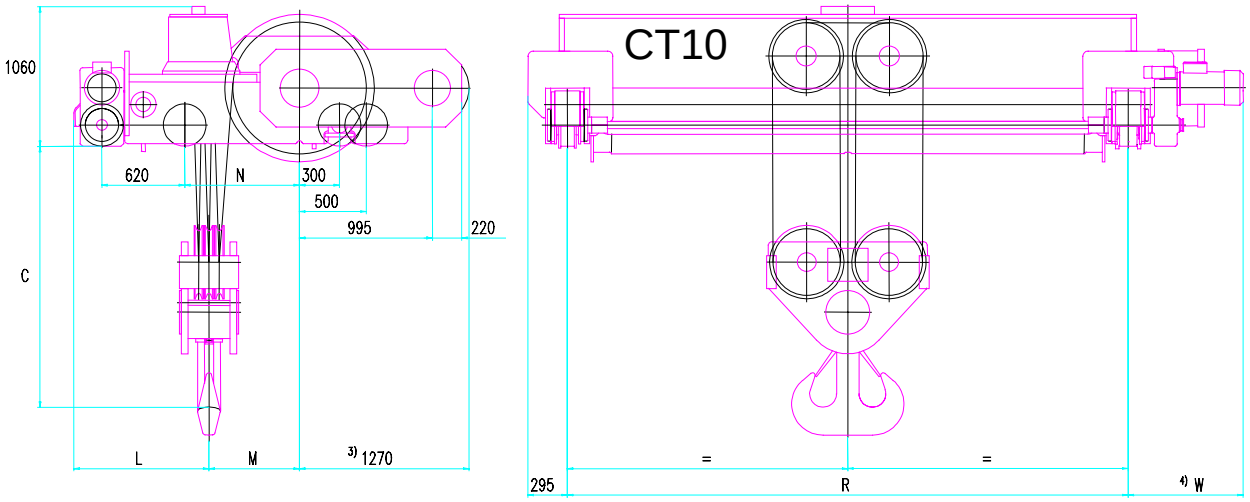
[5] with inverter control
[7] trolley with 4 wheels up to 80t
[8] trolley with 6 wheels, wheel diameter 250mm



	Dimensions (mm) C [2]	L	M	N	Rope drum Dd	Wheel Dm
CT0908	1285 - 1400	765	520	680	800	250
CT0912	1500 - 2150	720	565	680		
CT0916	1675 - 2300	785	600	780		

	Load (t)	FEM ISO	Lifting height (m) Trolley weight (t) [1] Rail gauge R (mm) 200	240	270	310	340	380	420	480	530	580	6500	Lifting speed [2] (m/min) F5 = 30 kW S3-50% F6 = 37 kW S3-50% F7 = 55 kW S3-40% F9 = 75 kW S3-40% F12 = max. Hubmotor 50Hz F5	F6	F7	F9	F12	Pulley (mm)	Rope mm
CT0908	80	1Bm M3	15,3	20,2	23,8	28,6	32,2	37,1	41,9	49,2	55,2	61,2	69,7	2,0	2,6	3,8	5,3	7,5	400	24
	63	1Am M4												2,3	3,2	4,8	6,7	9,5	448	
	50	2m M5												3,0	4,0	6,0	7,5	12	504	
	40	3m M6	5,9	6,2	6,3	6,5	6,7	7,2	7,7	8,4	9,0	10,0	11,0	3,0	5,0	7,5	9,5	15	560	
	32	4m M7												3,0	5,0	7,5	9,5	21	600	
	25	5m M8													5,6	9,5	13	26	672	
CT0912	125	1Bm M3	10,2	13,4	15,8	19,0	21,4	24,7	27,6	32,7	36,7	40,7	46,7	1,3	1,6	2,3	3,2	4,5	400	
	100	1Am M4												1,5	1,9	2,8	4,0	5,6	448	
	80	2m M5												2,0	2,4	3,4	5,0	7,1	504	
	63	3m M6	7,1	7,6	8,0	8,5	8,9	10,0	11,0	11,5	12,0	13,0	14,0	2,0	3,0	4,5	6,3	9,0	560	
	50	4m M7												2,0	3,0	4,5	6,3	14	600	
	40	5m M8													3,4	5,6	8,0	16	672	
CT0916	160	1Bm M3	7,6	10,1	11,9	14,3	16,1	18,5	20,9	24,6	27,6	30,6	34,8	1,0	1,2	1,9	2,4	3,8	400	
	125	1Am M4												1,1	1,6	2,4	3,0	4,2	448	
	100	2m M5												1,5	1,8	3,0	3,8	5,3	504	
	80	3m M6	7,4	7,9	8,3	8,8	9,2	10,1	11,5	12,0	13,0	14,0	15,0	1,5	2,3	3,6	4,8	6,7	560	
	63	4m M7												1,5	2,3	3,6	4,8	11	600	
	50	5m M8													2,8	4,2	6,0	13	672	

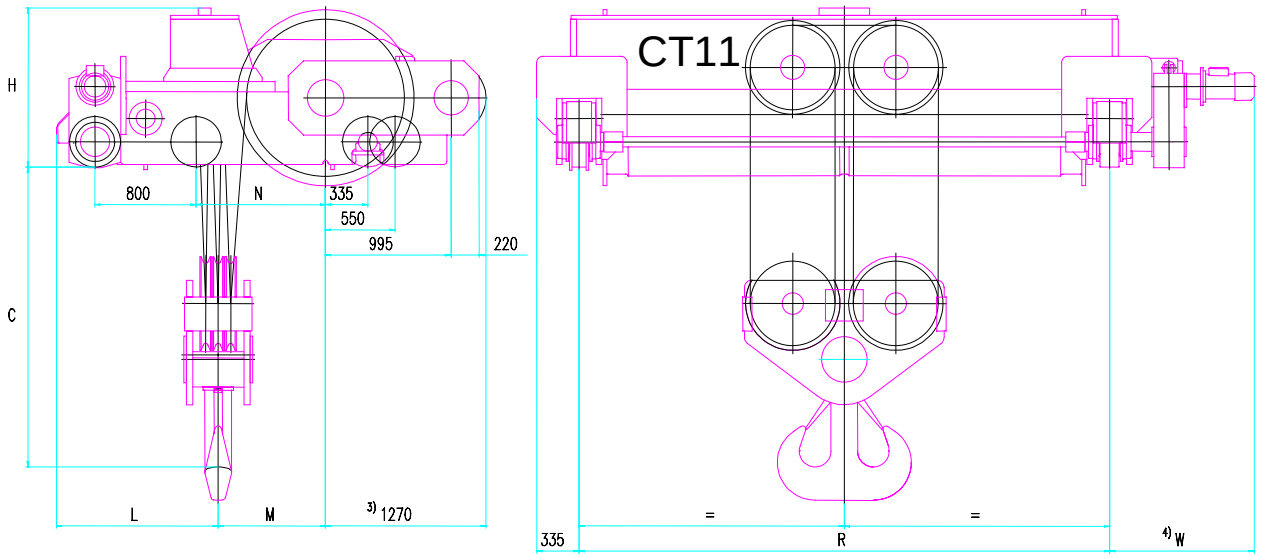
[1] FEM 1Bm and without service platform
[2] C-dimension dependent to FEM groupe and rail gauge
[3] with biggest lifting motor
[4] w dependent to trolley motor size
[5] with inverter control
[7] trolley with 4 wheels up to 80t
-several trolley speeds possible
- other models under request



	Dimensions (mm)				Rope drum	Wheel
	C [2]	L	M	N	Dd	Dm
CT1008	1655 - 1900	1055	635	860		
CT1012	1980 - 2550	1010	680	860	1000	320
CT1016	1945 - 2700	1050	720	940		

	Load (t)	FEM ISO	Lifting height (m) Trolley weight (t) [1] Rail gauge R (mm) 2700	3100	3400	3800	4200	4800	5300	5800	6500	Lifting speed [2] (m/min) F5 = 30 kW S3-50% F6 = 37 kW S3-50% F7 = 55 kW S3-40% F9 = 75 kW S3-40% F11 = 110kW S3-40% 50Hz F5	F6	F7	F9	F11	Pulley (mm)	Rope (mm)
CT1008	125	1Bm M3										1,2	1,6	2,0	3,2	4,8	504	28
	100	1Am M4	24,4	29,6	33,6	38,8	44,0	51,9	58,4	65,0	74,1	1,6	2,0	2,5	4,0	6,0	504	
	80	2m M5	14,1	14,7	15,4	16,1	16,8	17,6	18,5	19,0	20,5	2,0	2,4	3,6	4,8	6,0	560	
CT1012	180	1Bm M3										0,8	1,1	1,7	2,2	3,2	504	
	150	1Am M4	16,2	19,7	22,3	25,8	29,3	34,5	38,9	43,2	49,3	1,1	1,1	1,7	2,6	4,0	504	
	120	2m M5	15,0	15,6	16,2	16,8	17,7	18,5	20,0	21,0	22,0	1,3	1,6	2,4	3,2	4,0	560	
CT1016	250	1Bm M3										0,6	0,8	1,0	1,6	2,3	504	
	200	1Am M4	12,2	14,8	16,8	19,4	22,0	26,0	29,2	32,5	37,1	0,8	0,8	1,3	2,0	3,0	504	
	160	2m M5	15,7	16,3	17,0	17,7	18,5	19,2	21,0	22,0	23,2	1,0	1,2	1,8	2,3	3,0	560	

[1] FEM 1Bm and without service platform
[2] C-dimension dependent to FEM groupe and rail gauge
[3] with biggest lifting motor
[4] w dependent to trolley motor size
[5] with inverter control
[7] trolley with 4 wheels up to 80t
-several trolley speeds possible
- other models under request



	Dimensions (mm)					Rope drum	Wheel
	C [2]	L	M	N	H	Dd	Dw
CT1108	1975 - 2000	1335	795	1025	1265		400
CT1112	2385 - 2500	1275	855	1025	1265	1250	400
CT1116	2575 - 2650	1330	905	1130	1315		500

	Load		Lifting height (m) Trolley weight (t) [1]									Lifting speed [2] (m/min) F5 = 30 kW S3-50% F6 = 37 kW S3-50% F7 = 55 kW S3-40% F9 = 75 kW S3-40% F11 = 110kW S3-40% 50Hz					Pulley	Rope
	(t)	FEM ISO	Rail gauge R (mm) 2700	3100	3400	3800	4200	4800	5300	5800	6500	F5	F6	F7	F9	F11	(mm)	(mm)
	200	1Bm M3										0,8	1,0	1,3	2,0	3,0	672	
CT1108	160	1Am M4	21,5	26,6	30,4	35,5	40,6	48,2	54,6	60,9	69,8	1,0	1,2	1,6	2,4	3,6	672	
	125	2m M5	19,9	21,0	22,1	23,2	24,3	25,3	26,3	27,7	29,2	1,2	1,5	2,4	3,0	3,6	720	
	300	1Bm M3											0,7	0,9	1,4	2,0	672	
CT1112	240	1Am M4	14,2	17,7	20,2	23,6	27,0	32,0	36,3	40,5	46,0	0,7	0,8	1,1	1,6	2,4	672	36
	180	2m M5	21,8	22,7	23,6	24,5	25,6	27,6	29,0	30,5	32,3	0,8	1,0	1,6	2,0	2,4	720	
	400	1Bm M3												0,6	0,8	1,2	672	
CT1116	320	1Am M4	10,8	13,3	15,2	17,8	20,3	24,1	27,3	30,5	34,9		0,6	0,8	1,2	1,8	672	
	250	2m M5	24,1	25,2	26,3	27,5	28,8	30,5	32,2	33,6	35,0	0,6	0,8	1,0	1,5	1,8	720	

[1] FEM 1Bm and without service platform
[2] C-dimension dependent to FEM groupe and rail gauge
[3] with biggest lifting motor
[4] w dependent to trolley motor size
[5] with inverter control
[7] trolley with 4 wheels up to 80t
-several trolley speeds possible
- other models under request