POTAIN®

MDT 259 J12

17.2 ft

32.8 ft	32.8 ft	16.4 ft	32.8 ft	32.8 ft	32.8 ft	16.4 ft	16.4 ft
①	②	③	④	⑤	⑥	⑦	⑧

218.1 ft

7.5 ft

15.5 ft

13.2 USt   9.5 ft

213 ft

3.2 USt

(A) 58.7 ft

| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ |
197 ft
3.9 USt

| ① | ② | ③ | ④ | ⑤ | ⑥ |
180 ft
4.5 USt

| ① | ② | ④ | ⑤ | ⑥ |
164 ft
5 USt

(B) 50.2 ft

| ① | ② | ③ | ④ | ⑤ |
148 ft
5.9 USt

| ① | ② | ④ | ⑤ |
131 ft
6.6 USt

| ① | ② | ③ | ④ |
115 ft
7.4 USt

| ① | ② | ④ |
98 ft
9.1 USt

| ① | ② | ③ |
82 ft
11.3 USt

⌁ (ft)
- ◼ 246.7
- ◣ 233.6
- ◊ 161.8
- ◤ 244.4

6.6 ft x 6.6 ft   6.6 ft x 6.6 ft   6.6 ft x 6.6 ft

◼ 6.6 ft x 6.6 ft

◣ 19.7 ft   ◊ 14.8 ft   ◤ 19.7 ft

Potain Plus
P+

Power Control
kVA

POTAIN CONNECT

Top Site

Anti-collision systems
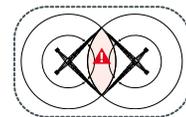
Automatic Rotation Control
ARC

Values have been rounded.

Mast - Reactions

6.6 ft - P 63A

▰ (ft)	82	98	115	131	148	164	180	197	213
(ft)	246.7	241.1	235.6	235.6	235.6	235.6	235.6	224.7	224.7
/P+ (ft)	246.7	241.1	235.6	235.6	235.6	235.6	235.6	224.7	224.7
6.6 ft	1	1	1	1	1	1	1	1	1
10.9 ft	1	2	0	0	0	0	0	2	2
16.4 ft	12	11	12	12	12	12	12	10	10
32.8 ft	1	1	1	1	1	1	1	1	1
F2 (USt) ●	219	213	212	212	213	213	212	208	209
F2 (USt) ■	386	371	359	356	364	365	362	331	338
F3 (USt) ●	164	158	156	155	155	155	152	148	149
F3 (USt) ■	338	323	310	306	313	314	310	278	284

6.6 ft - V 60A -

▰ (ft)	82	98	115	131	148	164	180	197	213
(ft)	206	211.3	206	211.3	211.3	211.3	211.3	211.3	211.3
/P+ (ft)	206	211.3	206	211.3	211.3	211.3	211.3	211.3	211.3
6.6 ft	1	1	1	1	1	1	1	1	1
10.9 ft	2	1	2	1	1	1	1	1	1
16.4 ft	10	11	10	11	11	11	11	11	11
F1 (USt) ●	113	114	114	115	115	115	119	119	119
F1 (USt) ■	145	152	147	152	156	157	155	154	158

6.6 ft - V 63A -

▰ (ft)	82	98	115	131	148	164	180	197	213
(ft)	228	233.6	233.6	233.6	233.6	233.6	233.6	228	228
/P+ (ft)	228	233.6	233.6	233.6	233.6	233.6	233.6	228	228
6.6 ft	1	1	1	1	1	1	1	1	1
10.9 ft	1	0	0	0	0	0	0	1	1
16.4 ft	11	12	12	12	12	12	12	11	11
F1 (USt) ●	133	134	136	136	136	136	140	135	135
F1 (USt) ■	181	188	191	189	193	193	191	182	186

6.6 ft x 6.6 ft

P 63A / P 800B

32.8 ft

1 ft

F2   F3

6.6 ft x 6.6 ft

V 60A / V 63A

16.4 ft

15.1 ft (V 60A)
31.8 ft (V 63A)

1.3 ft (V 60A)
1.6 ft (V 63A)

2.6 ft (V 60A)
3 ft (V 63A)

19.7 ft   F1

◰ 6.6 ft - ZD 640 - ⬓									
⏷ (ft)	82	98	115	131	148	164	180	197	213
⤵ (ft)	156.5	161.8	156.5	156.5	161.8	161.8	161.8	150.9	150.9
⤵/P+ (ft)	156.5	161.8	156.5	156.5	161.8	161.8	161.8	150.9	150.9
6.6 ft	1	1	1	1	1	1	1	1	1
10.9 ft	0	2	0	0	2	2	2	1	1
16.4 ft	9	8	9	9	8	8	8	8	8
F1 (USt) ●	107	111	109	110	114	114	114	111	110
■	106	114	109	108	121	122	119	108	109

◰ 6.6 ft - ZX 640 - ⬓									
⏷ (ft)	82	98	115	131	148	164	180	197	213
⤵ (ft)	244.4	244.4	244.4	238.9	238.9	238.9	238.9	228	228
⤵/P+ (ft)	244.4	244.4	244.4	238.9	238.9	238.9	238.9	228	228
6.6 ft	1	1	1	1	1	1	1	1	1
10.9 ft	2	2	2	0	0	0	0	2	2
16.4 ft	11	11	11	12	12	12	12	10	10
32.8 ft	1	1	1	1	1	1	1	1	1
F1 (USt) ●	144	144	147	139	143	143	140	131	134
■	199	199	202	190	195	195	193	174	178

ZD 640

6.6 ft x 6.6 ft
16.4 ft
3.8 ft
14.8 ft
F1

ZX 640

6.6 ft x 6.6 ft
32.8 ft
4.1 ft
19.7 ft
F1
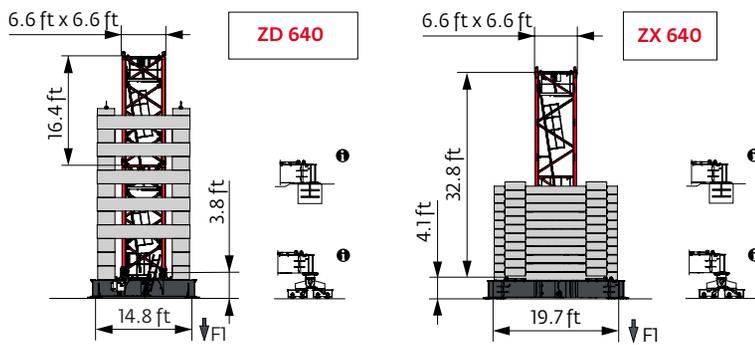
Note: When "ASCE" is noted in this data sheet it is referring to 115 mph Wind Zone, Exposure B, Design Wind Speed = 98 mph. See back cover for design wind speed calculations.

🛈 Motorized accesses: adapted mast compositions, base ballast and reactions.

Other mast compositions - Please consult us

Anchorages

🛈

Lest de base

(USt) / 6.6 ft - V 60A -

(ft)	82	98	115	131	148	164	180	197	213
211.3		145.5		145.5	145.5	145.5	145.5	145.5	145.5
206	145.5	145.5	145.5	132.3	145.5	145.5	132.3	132.3	132.3
189.6	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8
173.2	79.4	79.4	79.4	79.4	79.4	79.4	92.6	92.6	92.6
156.8	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
140.4	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
124	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
107.6	39.7	39.7	39.7	39.7	26.5	26.5	26.5	26.5	26.5
91.2	39.7	39.7	39.7	39.7	26.5	26.5	26.5	26.5	26.5
74.8	39.7	39.7	39.7	39.7	26.5	26.5	26.5	26.5	26.5

(USt) / 6.6 ft - V 63A -

(ft)	82	98	115	131	148	164	180	197	213
233.6		198.4	198.4	198.4	198.4	198.4	198.4		
228	198.4	185.2	185.2	185.2	185.2	185.2	185.2	185.2	185.2
211.6	158.7	158.7	158.7	145.5	158.7	158.7	145.5	145.5	145.5
195.2	132.3	119.1	119.1	119.1	119.1	119.1	119.1	105.8	119.1
178.8	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
162.4	79.4	79.4	79.4	66.1	66.1	66.1	79.4	79.4	79.4
146	66.1	66.1	66.1	52.9	52.9	52.9	66.1	66.1	66.1
129.6	52.9	52.9	52.9	39.7	39.7	39.7	52.9	52.9	52.9
113.2	39.7	39.7	39.7	39.7	26.5	26.5	39.7	39.7	26.5
96.8	39.7	39.7	26.5	26.5	26.5	26.5	26.5	26.5	26.5
80.4	39.7	39.7	26.5	26.5	26.5	26.5	26.5	26.5	26.5

(USt) / 6.6 ft - ZD 640 -

(ft)	82	98	115	131	148	164	180	197	213
161.8		137.8			137.8	137.8	137.8		
156.5	132.3	132.3	132.3	132.3	132.3	132.3	132.3		
150.9	132.3	132.3	132.3	132.3	121.3	121.3	121.3	137.8	132.3
134.5	110.2	110.2	110.2	110.2	99.2	99.2	99.2	110.2	110.2
118.1	99.2	88.2	88.2	88.2	88.2	88.2	77.2	88.2	88.2
101.7	88.2	88.2	77.2	77.2	77.2	77.2	66.1	77.2	66.1
85.3	88.2	88.2	77.2	77.2	77.2	77.2	66.1	55.1	66.1
68.9	88.2	88.2	77.2	77.2	77.2	77.2	66.1	55.1	66.1

(USt) / 6.6 ft - ZX 640 -

(ft)	82	98	115	131	148	164	180	197	213
244.4	220.5	220.5	220.5						
238.9	198.4	198.4	198.4	198.4	209.4	209.4	198.4		
228	176.4	176.4	176.4	165.4	176.4	176.4	176.4	165.4	176.4
211.6	143.3	132.3	143.3	132.3	143.3	143.3	132.3	143.3	143.3
195.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	121.3	121.3
178.8	99.2	88.2	99.2	99.2	88.2	88.2	88.2	99.2	99.2
162.4	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
146	66.1	66.1	66.1	66.1	55.1	55.1	55.1	66.1	66.1
129.6	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
113.2	44.1	33.1	33.1	33.1	33.1	33.1	22.1	33.1	33.1
96.8	44.1	33.1	33.1	33.1	33.1	33.1	22.1	22.1	22.1
80.4	44.1	33.1	33.1	33.1	33.1	33.1	22.1	22.1	22.1

Load curves

|	(ft)		56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	ft
	13.2 USt	6.6 USt																					
213	10 → 57	101 - 109	13.2	11.2	10	8.6	7.8	6.8	6.6	6.3	5.9	5.4	5.1	4.7	4.4	4.1	3.9	3.7	3.5	3.3	3.1	2.95	USt
	10 → 61	109 - 118	13.2	12.3	11	9.4	8.6	7.5	7	6.6	6.4	5.9	5.5	5.1	4.8	4.5	4.3	4	3.8	3.6	3.4	3.2	USt P+
197	10 → 61	109 - 117	13.2	12.1	10.8	9.3	8.5	7.5	6.9	6.6	6.3	5.8	5.5	5.1	4.8	4.5	4.3	4	3.8	3.6			USt
	10 → 66	118 - 127	13.2	13.2	11.9	10.3	9.4	8.2	7.6	6.8	6.6	6.4	6	5.5	5.3	4.9	4.7	4.3	4.2	3.9			USt P+
180	10 → 62	112 - 120	13.2	12.4	11.1	9.6	8.8	7.7	7.1	6.6	6.5	6	5.6	5.2	5	4.6	4.4	4.1					USt
	10 → 68	121 - 130	13.2	13.2	12.3	10.6	9.6	8.5	7.9	7	6.6	6.5	6.2	5.7	5.4	5	4.8	4.5					USt P+
164	10 → 62	112 - 120	13.2	12.5	11.2	9.6	8.8	7.7	7.2	6.6	6.6	6	5.7	5.2	5	4.6							USt
	10 → 68	121 - 131	13.2	13.2	12.3	10.6	9.7	8.5	7.9	7.1	6.6	6.6	6.2	5.7	5.4	5							USt P+
148	10 → 64	114 - 123	13.2	12.8	11.4	9.9	9	7.9	7.3	6.6	6.6	6.1	5.8	5.4									USt
	10 → 69	124 - 133	13.2	13.2	12.5	10.9	9.9	8.7	8.1	7.3	6.8	6.6	6.4	5.9									USt P+
131	10 → 66	118 - 128	13.2	13.2	11.9	10.3	9.4	8.3	7.7	6.9	6.6	6.4											USt
	10 → 71	128 - 131	13.2	13.2	13.1	11.3	10.3	9.1	8.4	7.6	7.1	6.6											USt P+
115	10 → 64		13.2	12.9	11.5	9.9	9.1	8	7.4	6.6													USt
	10 → 69		13.2	13.2	12.7	10.9	10	8.8	8.2	7.3													USt P+
98	10 → 65		13.2	13.1	11.8	10.1	9.3	8.2															USt
	10 → 71		13.2	13.2	12.9	11.2	10.2	9															USt P+
82	10 → 65		13.2	13.2	11.8	10.2																	USt
	10 → 71		13.2	13.2	13	11.2																	USt P+

= - 0.63 USt max.

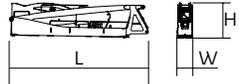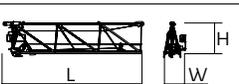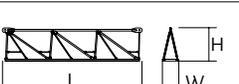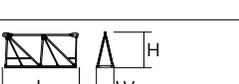|	(ft)		56	66	72	82	89	98	105	115	121	131	138	148	154	164	171	180	187	197	203	213	ft
	13.2 USt	6.6 USt																					
213	8 → 57	102 - 105	13.2	11.2	10	8.6	7.9	6.9	6.6	5.9	5.5	5	4.7	4.3	4.1	3.7	3.5	3.3	3.1	2.9	2.75	2.6	USt
	8 → 62	110 - 113	13.2	12.4	11.1	9.5	8.7	7.6	7	6.3	6	5.5	5.2	4.7	4.5	4.1	3.9	3.6	3.4	3.2	3.1	2.85	USt P+
197	8 → 61	110 - 112	13.2	12.2	10.9	9.4	8.6	7.6	7	6.4	6	5.5	5.2	4.7	4.5	4.1	3.9	3.7	3.5	3.3			USt
	8 → 66	119 - 121	13.2	13.2	12	10.3	9.4	8.3	7.7	6.9	6.4	6	5.7	5.2	4.9	4.6	4.3	4	3.8	3.6			USt P+
180	8 → 62	113 - 115	13.2	12.5	11.2	9.7	8.8	7.8	7.2	6.6	6.2	5.6	5.3	4.9	4.6	4.3	4.1	3.8					USt
	8 → 68	122 - 124	13.2	13.2	12.3	10.6	9.7	8.6	7.9	7.1	6.6	6.2	5.8	5.4	5.1	4.7	4.5	4.2					USt P+
164	8 → 63	113 - 115	13.2	12.5	11.2	9.7	8.9	7.8	7.2	6.6	6.2	5.7	5.3	4.9	4.6	4.3							USt
	8 → 68	122 - 125	13.2	13.2	12.4	10.7	9.7	8.6	8	7.1	6.7	6.2	5.9	5.4	5.1	4.7							USt P+
148	8 → 64	115 - 118	13.2	12.8	11.5	9.9	9.1	8	7.4	6.7	6.4	5.8	5.5	5									USt
	8 → 69	125 - 127	13.2	13.2	12.6	10.9	10	8.8	8.2	7.3	6.8	6.3	6	5.5									USt P+
131	8 → 66	119 - 122	13.2	13.2	12	10.3	9.4	8.3	7.7	6.9	6.6	6.1											USt
	8 → 72	129 - 131	13.2	13.2	13.1	11.4	10.4	9.2	8.5	7.6	7.1	6.6											USt P+
115	8 → 64		13.2	12.9	11.6	10	9.1	8.1	7.5	6.7													USt
	8 → 70		13.2	13.2	12.7	11	10.1	8.9	8.2	7.4													USt P+
98	8 → 66		13.2	13.2	11.8	10.2	9.3	8.2															USt
	8 → 71		13.2	13.2	13	11.2	10.3	9.1															USt P+
82	8 → 66		13.2	13.2	11.9	10.3																	USt
	8 → 71		13.2	13.2	13.1	11.3																	USt P+

= - 0.18 USt max.

Jib weight & counter-jib ballast

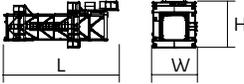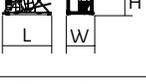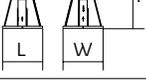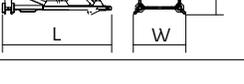|	(lb) (+/- 5%)					(lb)			(lb)
				10,141 lb	3,373 lb	(lb)	6,768 lb	3,373 lb	(lb)
213 ft	27,761	26,985	27,961	5	1	54,079	7	2	54,123
197 ft	27,090	26,381	27,247	5	1	54,079	7	2	54,123
180 ft	26,420	25,710	26,577	5	0	50,706	7	1	50,750
164 ft	24,562	23,852	24,718	4	1	43,938	6	1	43,982
148 ft	24,877	24,167	25,033	4	1	43,938	6	1	43,982
131 ft	23,089	22,379	23,246	4	0	40,565	6	0	40,609
115 ft	22,824	22,115	22,981	3	2	37,170	5	1	37,214
98 ft	20,723	20,014	20,880	3	1	33,797	5	0	33,841
82 ft	19,557	18,847	19,714	3	0	30,424	4	1	30,446

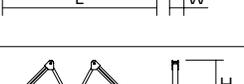**CBS - 10,141 lb** (in) 168 / 33 / 2

CBU - 6,768 lb (in) 167 / 22 / 2
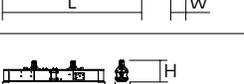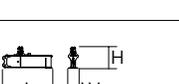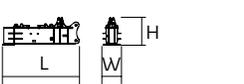
CBY - 3,373 lb (in) 154 / 11 / 2
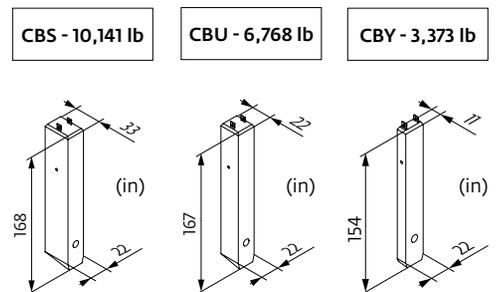
Dimensions and weight

Slewing crane part: 213 ft - - 50 LVF

x 6
x 5

Slewing crane part		L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib	Ⓐ	36.1	3.8	8.1	19,213
	Ⓑ	36.1	3.8	8.1	18,629
Towerhead + cab	6.6 ft	16.1	7.5	8.3	18,618
Hoisting winch (+ rope)	50 LVF	10.6	8.1	6.2	6,945
	90 HPL™	10.6	10.8	5.8	9,235
Jib section	① 6 DVF	35.5	5.6	9	7,959
Jib section	②	33.8	3.9	7.9	5,335
	④	33.5	3.9	7.8	3,439
	⑤	33.6	3.9	6.9	2,723
	⑥	33.4	3.9	6	1,753
Jib section	③	17.3	3.9	7.8	2,116
	⑦	16.7	3.9	5	683
Jib section	⑧	16.7	3.9	4.6	485
Trolley	13.2 USt	6.1	5	3.4	882
Pulley block	13.2 USt	3.9	1.4	7.6	1,003
Trolley	13.2 USt	5.2	5	3.2	463
Trolley	13.2 USt	5.6	5	3.4	540
	6.6 USt	6.1	5	3.2	520
Pulley block	13.2 USt	5.4	0.7	5.8	992
	6.6 USt	3.6	0.9	5.3	584
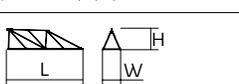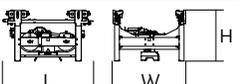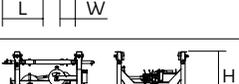
Crane tower				L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Telescopic cage T 61		⊿ 6.6 ft		35.5	13.6	14.7	21,385
K60/K60-2		⊿ 6.6 ft		7.3	8.2	8.1	4,255
K 649B KM 649E KRM 6410B		⊿ 6.6 ft		33.6 33.8 33.6	6.8 6.7 6.9	6.7 6.7 6.8	11,663 10,692 15,653
K 649A KMT 649A KR 649A KRMT 649A		⊿ 6.6 ft		17.2 17.2 17.2 17.2	6.8 6.8 6.9 6.9	6.7 6.7 6.8 6.8	6,184 5,666 7,165 6,724
KRMT 649C		⊿ 6.6 ft		11.7	6.9	6.8	5,401
Fixing angles		P 63A / P 800B		2.5	2.5	4.2	1,025
Basic mast unit		V 60A V 63A		16.4 32.9	7.9 7.9	7.9 7.9	10,494 16,887
Struts		V 60A V 63A		14.8 14.8	1 1.1	1 1.1	1,036 1,235
Half-bearer		V 60A V 63A		22 22	2.3 2.3	7.6 7.6	4,057 4,101
Cross girder		ZD 640		22.2	1	4.7	7,055
1/2 Cross girder		ZD 640		10.8	1.9	4.7	2,976
Cross girder		ZX 640		30	3.9	5.1	15,168
1/2 Cross girder		ZX 640		14.3	3.3	5.1	7,319

Mechanisms

480 V - 60 Hz			⌎⌏↑				⋃⋃↑				hp	kW	🗜
▲●▼	50 LVF 30 Optima	fpm	105	131	172	221	54	69	90	110	50	37	1,106 ft
		USt	6.6	5	3.3	1.7	13.2	9.9	6.6	3.5			
	90 HPL™ 30	fpm	176	228	326	469 723	90	120	172	244 361	90	66	2,434 ft
		USt	6.6	5	3.3	1.7 0.2	13.2	9.9	6.6	3.3 0.9			
◀■▶	6 DVF 4 Optima	fpm	0 → 164 (13.2 USt) 0 → 328 (6.6 USt) 0 → 394 (3.3 USt)								5.5	4	
◉	RVF 162 Optima+	rpm	0 → 0.9								2 x 7.5	2 x 5.5	
◀●▶ ⏟			🛈										

🔌 IEC 60204-32	kVA	
480 V (+6% -10%) 60 Hz	50 LVF: 58 → 38 kVA 90 HPL™: 90 → 54 kVA	🗜

50 LVF 30 Optima
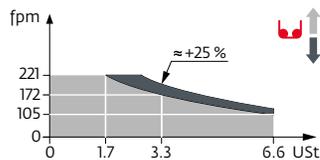
These mast combinations meet the EN 14439 and ASME B30.3-2016 specifications for "out of service" wind conditions, provided the illustrated wind speed matches required design wind speed for the location of the tower crane. The "out of service" design wind speed was determined in accordance with ASCE 7-10, Figure 26.5-1A. The wind velocity, used for this configuration was 98 mph (158 kph), which represents a nominal design 3-second wind gust at 33 ft (10 m) above ground for Exposure B category. A factor of 0.85 was applied to the 700-year ultimate design wind speed of 115 mph (185 kph), per ASCE 37-02, with the assumption that this crane is considered a temporary structure used during a construction period of 2 years or less.

⛰	Jib elevation	🝙	Total ballast weight	◀●▶	Travelling
◻	Standard equipment	▲▼▲▼	Jib weight	kVA	Required power
⠿	Options	🚛	Lorry 44 ft	🗜	Power Control Function: winch speeds adapted to the available power
P+	Potain Plus function: Plus load curves	▌▌▌▌▌	Container High Cube 40 ft, and/or Flat Rack 20 ft	🛈	Consult us
⤴/P+	Hook heights with Plus load curves	▲●▼	Hoisting		
●	Reactions in service	◀■▶	Trolleying		
■	Reactions out of service	◉	Slewing		

⚠ This commercial document is not legally binding. For any technical information, please refer to the corresponding instructions.

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