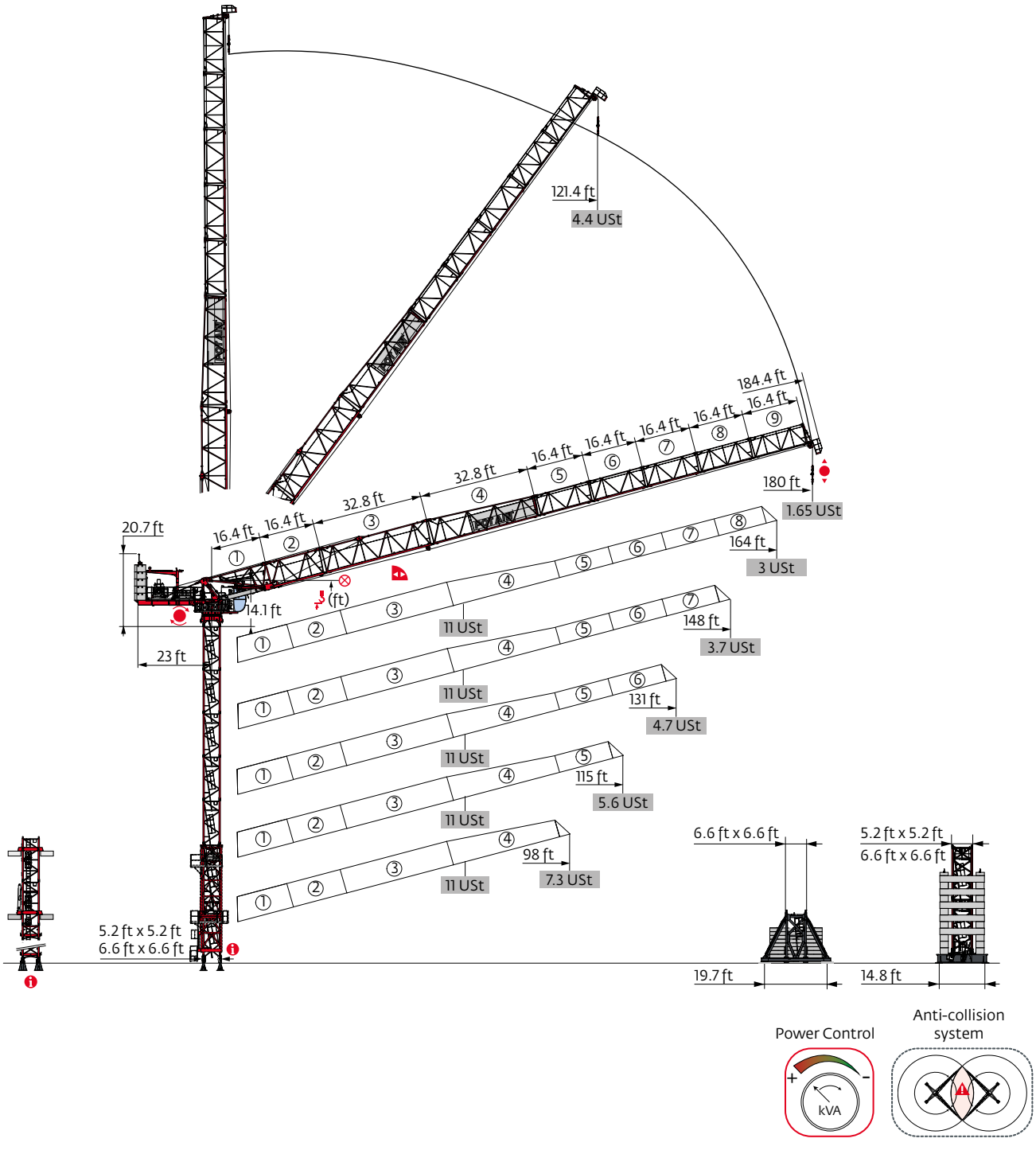
POTAIN®

MRH 175



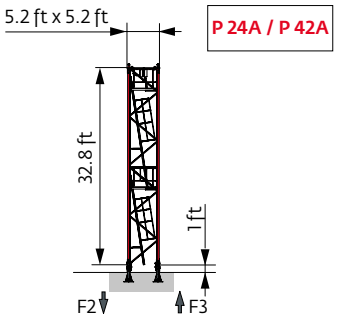
ASCE 7-10

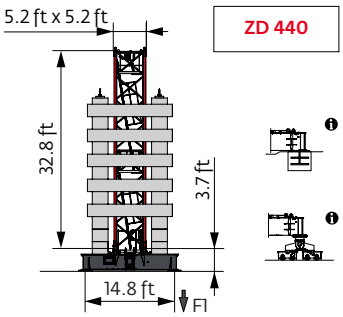
Values have been rounded.

Mast - Reactions

5.2 ft - P 42A							
(ft)		98	115	131	148	164	180
(ft)		129.6	129.6	113.2	113.2	96.8	102.4
10.9 ft		0	0	0	0	0	2
16.4 ft		5	5	4	4	3	2
32.8 ft		1	1	1	1	1	1
F2 (USt)	●	164	166	161	168	166	163
	■	169	187	170	188	168	198
F3 (USt)	●	123	126	116	122	121	125
	■	129	147	130	148	129	159

5.2 ft - ZD 440 -							
(ft)		98	115	131	148	164	180
(ft)		132.2	127	115.8	115.8	99.4	99.4
10.9 ft		0	1	0	0	0	0
16.4 ft		5	4	4	4	3	3
32.8 ft		1	1	1	1	1	1
F1 (USt)	●	103	104	104	106	102	101
	■	101	103	101	107	97	105





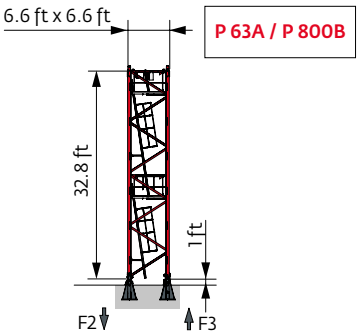
Other mast compositions - Please consult us.

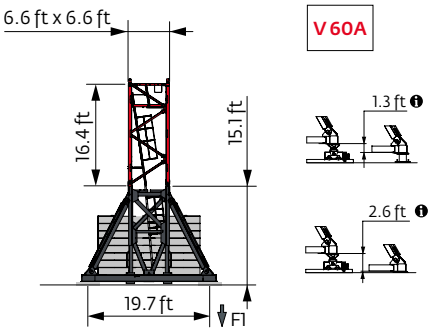
Motorized accesses: adapted mast compositions, base ballast and reactions.

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.

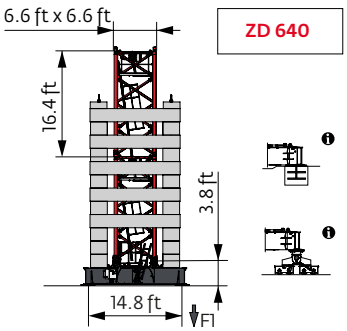
6.6 ft - P 63A							
(ft)		98	115	131	148	164	180
(ft)		228	222.8	211.6	206.4	200.8	195.2
10.9 ft		0	1	0	1	2	0
16.4 ft		11	10	10	9	8	9
32.8 ft		1	1	1	1	1	1
F2 (USt)	●	197	198	197	200	203	191
	■	405	409	397	401	404	404
F3 (USt)	●	143	139	138	141	145	139
	■	351	356	344	348	351	351

6.6 ft - V 60A -							
(ft)		98	115	131	148	164	180
(ft)		182.1	176.5	165.7	160.1	149.3	143.7
10.9 ft		2	0	2	0	2	0
16.4 ft		8	9	7	8	6	7
F1 (USt)	●	105	107	106	107	107	101
	■	139	140	135	137	131	131





6.6 ft - ZD 640 -							
(ft)		98	115	131	148	164	180
(ft)		132.6	127	121.4	116.1	105	99.7
10.9 ft		0	1	2	0	2	0
16.4 ft		7	6	5	6	4	5
F1 (USt)	●	105	106	107	108	108	103
	■	107	109	110	111	108	108



Anchorages

Base ballast

(USt) / 5.2 ft - ZD 440 -

(ft)	98	115	131	148	164	180
132.2	132.3					
127	121.3	132.3				
115.8	110.2	121.3	132.3	132.3		
99.4	99.2	110.2	110.2	121.3	121.3	132.3
83	88.2	88.2	99.2	99.2	110.2	121.3

(ft)

(USt) / 6.6 ft - V 60A -

(ft)	98	115	131	148	164	180
182.1	145.5					
176.5	132.3	145.5				
165.7	119.1	132.3	145.5			
160.1	105.8	119.1	132.3	145.5		
149.3	79.4	92.6	105.8	132.3	145.5	
143.7	79.4	79.4	105.8	119.1	132.3	145.5
127.3	66.1	79.4	79.4	92.6	105.8	119.1
110.9	66.1	66.1	66.1	79.4	79.4	79.4
94.5	52.9	52.9	66.1	66.1	66.1	79.4
78.1	39.7	52.9	52.9	52.9	66.1	66.1
61.7	39.7	39.7	39.7	52.9	52.9	52.9
45.3	26.5	39.7	39.7	39.7	39.7	52.9

(ft)

(USt) / 6.6 ft - ZD 640 -

(ft)	98	115	131	148	164	180
132.6	137.8					
127	132.3	137.8				
121.4	132.3	132.3	137.8			
116.1	121.3	132.3	132.3	137.8		
105	110.2	121.3	121.3	132.3	137.8	
99.7	110.2	110.2	121.3	121.3	132.3	137.8
83.3	88.2	99.2	99.2	110.2	121.3	121.3
66.9	77.2	88.2	88.2	99.2	99.2	110.2
50.5	66.1	77.2	77.2	88.2	88.2	99.2

(ft)

Load curves

(ft)	11 USt	5.5 USt	56	66	72	82	89	98	99.5	105	115	115.6	121	131	131.8	138	148	154	164	ft
164	15.1 → 73.6	114.3 - 116.8	11	11	11	9.4	8.4	7.1	-	6.4	5.5	-	5.1	4.4	-	4	3.5	3.1	2.7	USt
148	14.1 → 73	113.5 - 115.9	11	11	11	9.3	8.3	7	-	6.3	5.5	-	5.1	4.4	-	4	3.4	USt		
131	13.5 → 73.2	114.1 - 116.5	11	11	11	9.4	8.4	7.1	-	6.4	5.5	-	5.1	4.4	4.4	USt				
115	12.5 → 73.6	115.6 - 115.6	11	11	11	9.5	8.5	7.2	-	6.5	5.6	5.5	USt							
98	11.5 → 73.7		11	11	11	9.5	8.5	7.3	7.2	USt										

= - 0.21 USt max.

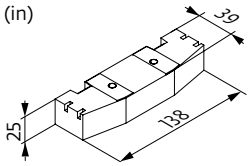
(ft)	5.5 USt	56	66	72	82	89	98	99.5	105	115	115.6	121	131	131.8	138	148	154	164	171	180	ft
180	16.1 → 121.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.8	-	3.4	2.9	2.6	2.2	1.95	1.65	USt
164	15.1 → 120.1	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.4	4.7	-	4.3	3.7	3.4	3	USt		
148	14.1 → 119.3	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.3	4.7	-	4.2	3.7	USt				
131	13.5 → 120	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.4	4.7	4.7	USt						
115	12.5 → 115.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	USt									
98	11.5 → 99.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	USt												

Jib weight & counter-jib ballast

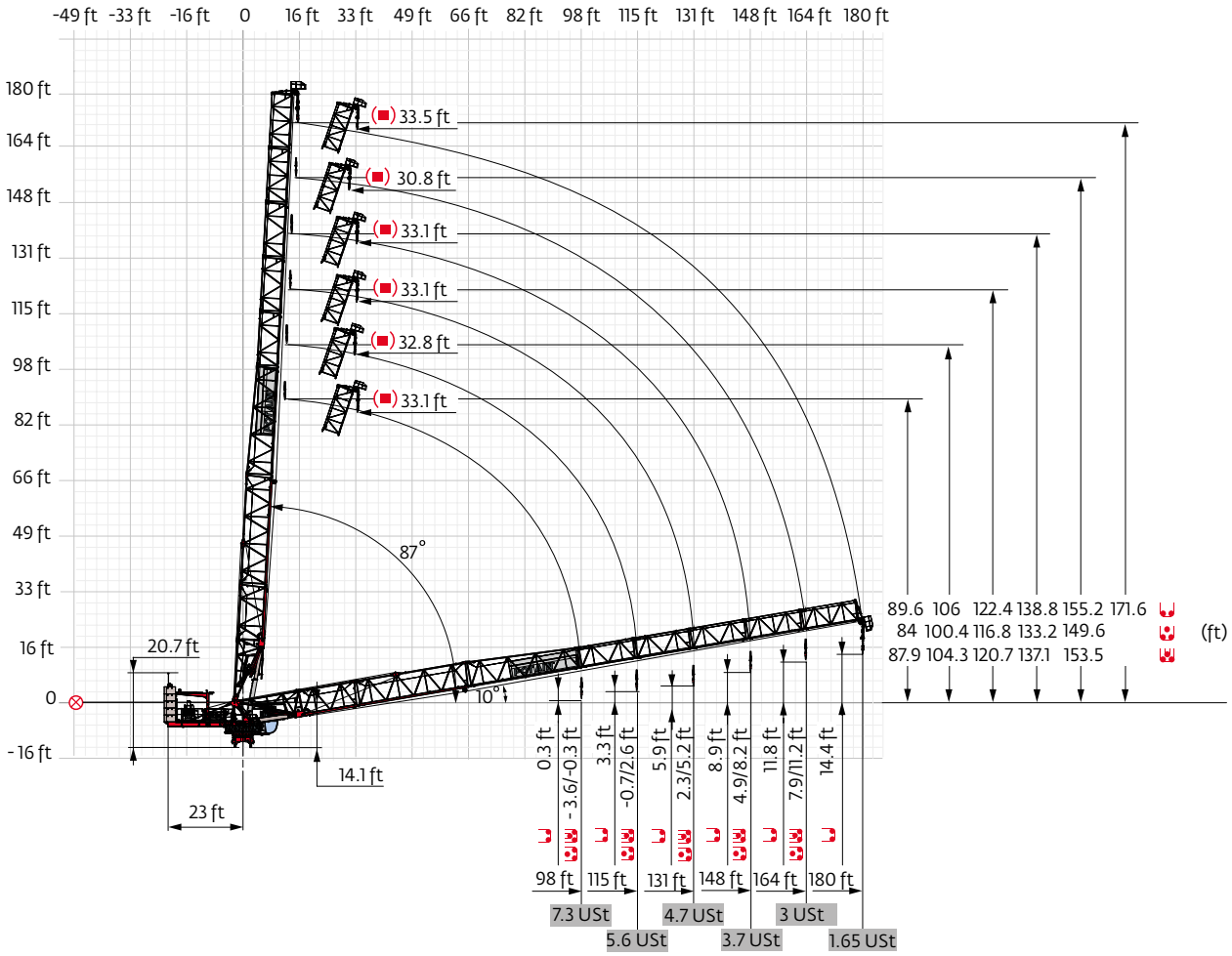
	(lb) (+/- 5%) ② ---> ⑨			
			10,472 lb	(lb)
180 ft	16,403	-	5	52,360
164 ft	15,731	16,128	5	52,360
148 ft	14,948	15,345	5	52,360
131 ft	14,000	14,397	5	52,360
115 ft	12,821	13,218	5	52,360
98 ft	11,465	11,862	5	52,360

CCL - 10,472 lb

(in)



Luffing jib

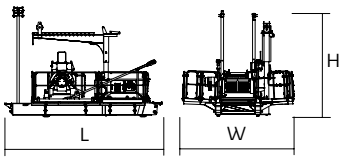
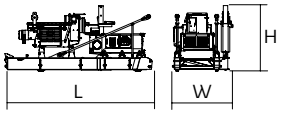
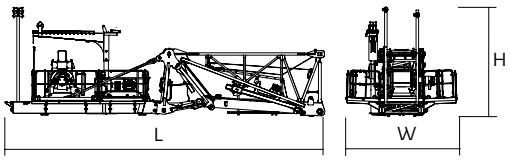
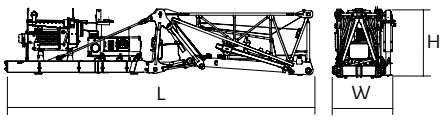
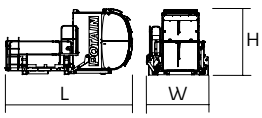
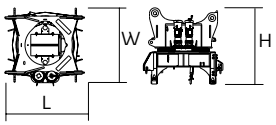
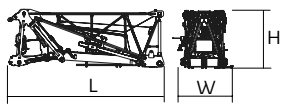
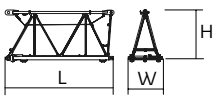
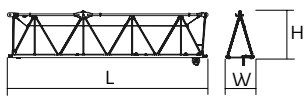
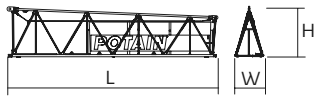
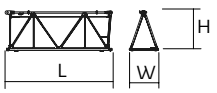
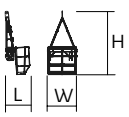


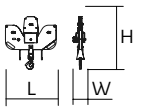
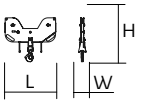
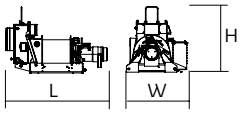
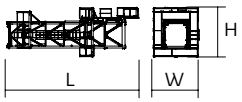
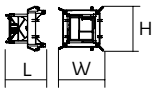
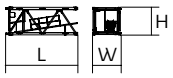
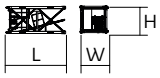
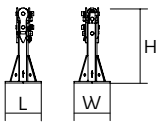
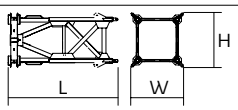
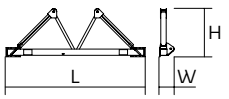
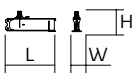
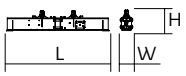
Dimensions and weight

Slewing crane part: 180 ft - - 50 LVF

x 4

x 4

Slewing crane part			L (ft)	W (ft)	H (ft)	lb (+/- 5%)
Counter-jib		50 LVF 90 HPL™	19.7	13.9	13.1	15,399 17,780
		50 LVF 90 HPL™	18.2	7.4	10	14,099 16,480
Counter-jib + Jib foot		50 LVF 90 HPL™	40	13.9	13.1	32,187 34,568
		50 LVF 90 HPL™	39.4	7.4	8.4	30,887 33,268
Cab		V140 SR	15.9	7.8	8.2	3,748
Towerhead		⍁5.2 ft ⍁6.6 ft	7.1 8.2	6.6 8.1	7.8 7.8	10,891 13,922
Jib section		①	21.6	7.1	8.4	16,788
		②	17.4	5.6	8.2	3,164
		③	33	4.7	8.2	4,068
		④	33.6	4.7	7.8	3,395
		⑤ ⑥ ⑦ ⑧ ⑨	17.1 17 16.9 16.9 16.9	4.7 4.7 4.7 4.5 4.5	6.4 6.4 6.4 6.3 6.3	1,356 1,179 948 783 672
			4	4.9	10	397

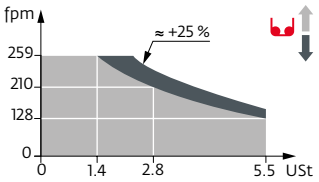
Pulley block			4.8	1.2	4.9	838
			4.8	0.7	4.1	441
Hoisting winch (+ rope)		50 LVF 90 HPL™	8.2 9.3	5 4.3	5.3 5.6	4,365 6,746
Crane tower			**L (ft)**	**W (ft)**	**H (ft)**	**lb** (+/- 5%)
T61		⍁6.6 ft	35.5	13.6	14.7	21,385
K60/K40-2		⍁6.6/5.2 ft	7.3	8.2	8.1	5,820
K 447E KM 447E KRM 449E K 649B KM 649E KRM 6410B		⍁5.2 ft ⍁5.2 ft ⍁5.2 ft ⍁6.6 ft ⍁6.6 ft ⍁6.6 ft	33.5 33.5 33.5 33.6 33.8 33.6	5.3 5.3 5.3 6.8 6.7 6.9	5.3 5.3 5.3 6.7 6.7 6.8	7,474 7,088 9,370 11,663 10,692 15,653
K 447A KMT 447A K 449A KMT 449A KR 649A KRMT 649A K 649A KMT 649A		⍁5.2 ft ⍁5.2 ft ⍁5.2 ft ⍁5.2 ft ⍁6.6 ft ⍁6.6 ft ⍁6.6 ft ⍁6.6 ft	17.1 17.1 17.1 17.1 17.2 17.2 17.2 17.2	5.5 5.5 5.5 5.5 6.9 6.9 6.8 6.8	5.3 5.3 5.3 5.3 6.8 6.8 6.7 6.7	4,079 3,847 4,916 4,696 7,165 6,724 6,184 5,666
KMT 447C KRMT 649C		⍁5.2 ft ⍁6.6 ft	11.6 11.7	5.5 6.9	5.3 6.8	2,976 5,401
Fixing angles		P 24A / P 42A P 63A / P 800B	1.8 2.5	1.8 2.5	3.8 4.2	529 1,025
Basic mast unit		V 60A	16.4	7.9	7.9	10,494
Struts		V 60A	14.8	1	1	1,036
Half-bearer		V 60A	22	2.3	7.6	4,057
1/2 Cross girder		ZD 440 ZD 640	10.8 10.8	1.9 1.9	4.4 4.7	2,778 2,976
Cross girder		ZD 440 ZD 640	22.2 22.2	2.8 1	4.3 4.7	6,702 7,055

Mechanisms

480 V - 60 Hz											hp	kW	
	50 LVF 25 Optima	fpm	128	161	210	259	66	84	108	130	50	37	1,827 ft
		USt	5.5	4.1	2.8	1.4	11	8.3	5.5	3.2			
	90 HPL™ 25	fpm	213	279	392	518	707	110	146	203	271	353	90	66	3,136 ft
		USt	5.5	4.1	2.8	1.4	0.4	11	8.3	5.5	2.8	1.3			
	60 VVH 140	min	2										60	45	
	RVF 152 Optima +	rpm	0 → 0.8										2 x 5.5	2 x 4	

IEC 60204-32	kVA
480 V (+6% -10%) 60 Hz	50 LVF: 107 kVA 90 HPL™: 139 → 103 kVA

50 LVF 25 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.

- Standard equipment
- Options
- Reactions in service
- Reactions out of service
- Jib weight
- Total ballast weight
- Jib articulation axis
- Weathervaning position
- Lorry 44 ft
- Container High Cube 40 ft, and/or Flat Rack 20 ft
- Hoisting
- Luffing
- Slewing
- Travelling
- Required power
- Power Control Function: winch speeds adapted to the available power
- Consult us

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