

AL1 Standard Series Mast - Load Tables

Fully Operational	Survivable	Mast Failure			
2 m AL1 Standard Series (7.5 ft) Primary Guying Only 50 lbs Deployed					
		Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
1 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
2 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
3 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				

Fully Operational	Survivable	Mast Failure			
2 m AL1 Standard Series (7.5 ft) Primary & Secondary Guying 50 lbs Deployed					
		Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
1 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
2 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
3 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				

Fully Operational	Survivable	Mast Failure			
3 m AL1 Standard Series (10.5 ft) Primary Guying Only 47.5 lbs Deployed					
		Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
1 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
2 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
3 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				

Fully Operational	Survivable	Mast Failure			
3 m AL1 Standard Series (10.5 ft) Primary & Secondary Guying 47.5 lbs Deployed					
		Wind Speed (mph)	70	90	110
Mast Only	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
1 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
2 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				
3 Sq Ft Panel	30% Guy Distance				
	50% Guy Distance				
	80% Guy Distance				

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

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Fully Operational		Survivable		Mast Failure		
4 m AL1 Standard Series (13.5 ft)						
Primary Guying Only						
45 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
4 m AL1 Standard Series (13.5 ft)						
Primary & Secondary Guying						
45 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
5 m AL1 Standard Series (16.5 ft)						
Primary Guying Only						
42.5 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
5 m AL1 Standard Series (16.5 ft)						
Primary & Secondary Guying						
42.5 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

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Fully Operational		Survivable		Mast Failure		
6 m AL1 Standard Series (19.5 ft)						
Primary Guying Only						
40 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
7 m AL1 Standard Series (19.5 ft)						
Primary & Secondary Guying						
40 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
7 m AL1 Standard Series (22.5 ft)						
Primary Guying Only						
37.5 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
7 m AL1 Standard Series (22.5 ft)						
Primary & Secondary Guying						
37.5 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational		Survivable		Mast Failure		
8 m AL1 Standard Series (25.5 ft)						
Primary Guying Only						
35 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance	Green	Yellow	Yellow		
	50% Guy Distance	Green	Green	Yellow		
	80% Guy Distance	Green	Green	Green		
1 Sq Ft Panel	30% Guy Distance	Green	Yellow	Red		
	50% Guy Distance	Green	Green	Yellow		
	80% Guy Distance	Green	Green	Green		
2 Sq Ft Panel	30% Guy Distance	Yellow	Red	Red		
	50% Guy Distance	Green	Yellow	Yellow		
	80% Guy Distance	Green	Green	Yellow		
3 Sq Ft Panel	30% Guy Distance	Yellow	Red	Red		
	50% Guy Distance	Green	Yellow	Red		
	80% Guy Distance	Green	Green	Yellow		

Fully Operational		Survivable		Mast Failure		
8 m AL1 Standard Series (25.5 ft)						
Primary & Secondary Guying						
35 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance	Green	Green	Green		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
1 Sq Ft Panel	30% Guy Distance	Green	Green	Green		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
2 Sq Ft Panel	30% Guy Distance	Green	Green	Green		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
3 Sq Ft Panel	30% Guy Distance	Green	Green	Yellow		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		

Fully Operational		Survivable		Mast Failure		
9 m AL1 Standard Series (28.5 ft)						
Primary Guying Only						
32.5 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance	Yellow	Yellow	Red		
	50% Guy Distance	Green	Green	Yellow		
	80% Guy Distance	Green	Green	Green		
1 Sq Ft Panel	30% Guy Distance	Yellow	Red	Red		
	50% Guy Distance	Green	Yellow	Red		
	80% Guy Distance	Green	Green	Yellow		
2 Sq Ft Panel	30% Guy Distance	Yellow	Red	Red		
	50% Guy Distance	Green	Yellow	Yellow		
	80% Guy Distance	Green	Green	Yellow		
3 Sq Ft Panel	30% Guy Distance	Red	Red	Red		
	50% Guy Distance	Yellow	Red	Red		
	80% Guy Distance	Green	Yellow	Red		

Fully Operational		Survivable		Mast Failure		
9 m AL1 Standard Series (28.5 ft)						
Primary & Secondary Guying						
32.5 lbs Deployed						
Wind Speed (mph)		70	90	110		
Mast Only	30% Guy Distance	Green	Green	Green		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
1 Sq Ft Panel	30% Guy Distance	Green	Green	Green		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
2 Sq Ft Panel	30% Guy Distance	Green	Green	Yellow		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		
3 Sq Ft Panel	30% Guy Distance	Green	Yellow	Yellow		
	50% Guy Distance	Green	Green	Green		
	80% Guy Distance	Green	Green	Green		

All calculations are based on the assumption that the tripod has been secured to the ground and is immovable and that the guy stakes holding the guy ropes have been secured to the ground and are immovable. Different types of soil conditions can negatively impact wind and load calculations and should be considered before deploying the mast.

AL1 Standard Series Mast - Load Tables

Fully Operational		Survivable			Mast Failure		
10 m AL1 Standard Series (31.5 ft) Primary Guying Only 30 lbs Deployed							
		Wind Speed (mph)			70	90	110
Mast Only	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
1 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
2 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
3 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						

Fully Operational		Survivable			Mast Failure		
10 m AL1 Standard Series (31.5 ft) Primary & Secondary Guying 30 lbs Deployed							
		Wind Speed (mph)			70	90	110
Mast Only	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
1 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
2 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
3 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						

Fully Operational		Survivable			Mast Failure		
11 m AL1 Standard Series (34.5 ft) Primary Guying Only 25 lbs Deployed							
		Wind Speed (mph)			70	90	110
Mast Only	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
1 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
2 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
3 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						

Fully Operational		Survivable			Mast Failure		
11 m AL1 Standard Series (34.5 ft) Primary & Secondary Guying 25 lbs Deployed							
		Wind Speed (mph)			70	90	110
Mast Only	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
1 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
2 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						
3 Sq Ft Panel	30% Guy Distance						
	50% Guy Distance						
	80% Guy Distance						

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AL1 Standard Series Mast - Load Tables

Fully Operational		Survivable		Mast Failure		
12 m AL1 Standard Series (37.5 ft) Primary Guying Only 20 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Yellow	Red	Red	Red	Red
	80% Guy Distance	Yellow	Yellow	Red	Red	Red
1 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Yellow	Red	Red	Red	Red
2 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Yellow	Red	Red	Red	Red
3 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Yellow	Red	Red	Red	Red

Fully Operational		Survivable		Mast Failure		
12 m AL1 Standard Series (37.5 ft) Primary & Secondary Guying 20 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance	Green	Yellow	Yellow	Yellow	Yellow
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Green	Green
1 Sq Ft Panel	30% Guy Distance	Green	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Green	Green
2 Sq Ft Panel	30% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Yellow	Yellow
3 Sq Ft Panel	30% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Yellow	Yellow	Red	Red
	80% Guy Distance	Green	Green	Green	Yellow	Yellow

Fully Operational		Survivable		Mast Failure		
13 m AL1 Standard Series (40.5 ft) Primary Guying Only 15 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Yellow	Red	Red	Red	Red
1 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Yellow	Red	Red	Red	Red
2 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Red	Red	Red	Red	Red
3 Sq Ft Panel	30% Guy Distance	Red	Red	Red	Red	Red
	50% Guy Distance	Red	Red	Red	Red	Red
	80% Guy Distance	Red	Red	Red	Red	Red

Fully Operational		Survivable		Mast Failure		
13 m AL1 Standard Series (40.5 ft) Primary & Secondary Guying 15 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance	Green	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Green	Green
1 Sq Ft Panel	30% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Yellow	Yellow
2 Sq Ft Panel	30% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	50% Guy Distance	Green	Green	Green	Yellow	Yellow
	80% Guy Distance	Green	Green	Green	Yellow	Yellow
3 Sq Ft Panel	30% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	50% Guy Distance	Yellow	Yellow	Yellow	Red	Red
	80% Guy Distance	Green	Yellow	Yellow	Yellow	Yellow

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AL1 Standard Series Mast - Load Tables

Fully Operational		Survivable		Mast Failure		
14 m AL1 Standard Series (43.5 ft) Primary Guying Only 12.5 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
14 m AL1 Standard Series (43.5 ft) Primary & Secondary Guying 12.5 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
15 m AL1 Standard Series (46.5 ft) Primary Guying Only 10 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

Fully Operational		Survivable		Mast Failure		
15 m AL1 Standard Series (46.5 ft) Primary & Secondary Guying 10 lbs Deployed						
		Wind Speed (mph)		70	90	110
Mast Only	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
1 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
2 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					
3 Sq Ft Panel	30% Guy Distance					
	50% Guy Distance					
	80% Guy Distance					

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