

Our Ref: 20172R-000

STRUCTURAL REPORT

Solar Panel Support System

JIANGYIN TITANERGY CO., LTD

AS/NZS 1170.2:2011 AMDT No.2 DEC 2012

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SUMMARY

Our Ref: 20172R-000

April 2016

JIANGYIN TITANERGY CO., LTD

Re: Solar Panel Support System

Dear Sir,

This report is the structural check for solar panel support systems based on the up-dated WIND ACTIONS: AS/NZS 1170.2:2011 ADMT No.2 DEC 2012

As requested, we have reviewed the Installation manual provided to us:

Ground Mounting System - Installation manual Dated April 2016 Rev. 1.0

The check included a review of Australia wide loading conditions including Cyclonic conditions.

The Racking System complies with the following provisions of the regulations**
AS4100-1998, AS1170.0-2011, AS1170.1-2011, AS1170.2-2011, AS4600-2005

The general arrangement of the rails and supports for regions throughout Australia was based on the above Installation Manual

The review has determined that the components were found to be acceptable.

WIND ANALYSIS

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A1 - South of 30° (excluding Tasmania and Bass Strait islands), Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.01kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A1 - South of 30° (excluding Tasmania and Bass Strait)
Region = A
Sub region = 1

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	38.9	0.91	0.61	NE	36.9	0.81	0.55
S	38.9	0.91	0.61	SW	41.0	1.01	0.68
E	32.8	0.64	0.44	SE	34.8	0.73	0.49
W	41.0	1.01	0.68	NW	41.0	1.01	0.68

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
NE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
E	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
SE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
S	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
SW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
W	1.00	45.0	5.0	2.0	0.91	1.00	1.00	41.0	1.01
NW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A1 - South of 30° (excluding Tasmania and Bass Strait islands), Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.22kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A1 - South of 30° (excluding Tasmania and Bass Strait)
Region = A
Sub region = 1

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

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Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	42.8	1.10	0.74	NE	40.5	0.98	0.67
S	42.8	1.10	0.74	SW	45.0	1.22	0.82
E	36.0	0.78	0.53	SE	38.3	0.88	0.59
W	45.0	1.22	0.82	NW	45.0	1.22	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
NE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
E	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
SE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
S	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
SW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
W	1.00	45.0	10.0	2.0	1.00	1.00	1.00	45.0	1.22
NW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A1 - South of 30° (excluding Tasmania and Bass Strait islands), Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.34kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A1 - South of 30° (excluding Tasmania and Bass Strait)
Region = A
Sub region = 1

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

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Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	44.9	1.21	0.82	NE	42.5	1.09	0.73
S	44.9	1.21	0.82	SW	47.3	1.34	0.91
E	37.8	0.86	0.58	SE	40.2	0.97	0.65
W	47.3	1.34	0.91	NW	47.3	1.34	0.91

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
NE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
E	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
SE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
S	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
SW	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
W	1.00	45.0	15.0	2.0	1.05	1.00	1.00	47.3	1.34
NW	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A1 - South of 30° (excluding Tasmania and Bass Strait islands), Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.42kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A1 - South of 30° (excluding Tasmania and Bass Strait)
Region = A
Sub region = 1

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

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Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	46.2	1.28	0.86	NE	43.7	1.15	0.78
S	46.2	1.28	0.86	SW	48.6	1.42	0.96
E	38.9	0.91	0.61	SE	41.3	1.02	0.69
W	48.6	1.42	0.96	NW	48.6	1.42	0.96

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
NE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
E	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
SE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
S	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
SW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
W	1.00	45.0	20.0	2.0	1.08	1.00	1.00	48.6	1.42
NW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A2 - East coast below 30°, to 50km inland, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.01kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A2 - East coast below 30°, to 50km inland
Region = A
Sub region = 2

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
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Ratio VR.s / VR = 0.82
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Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	38.9	0.91	0.61	NE	32.8	0.64	0.44
S	38.9	0.91	0.61	SW	41.0	1.01	0.68
E	38.9	0.91	0.61	SE	38.9	0.91	0.61
W	41.0	1.01	0.68	NW	41.0	1.01	0.68

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
NE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
E	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
SE	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
S	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
SW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
W	1.00	45.0	5.0	2.0	0.91	1.00	1.00	41.0	1.01
NW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A2 - East coast below 30°, to 50km inland, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.22kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A2 - East coast below 30°, to 50km inland
Region = A
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Importance level = 2 1,2,3,4,(C)ustom
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Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	42.8	1.10	0.74	NE	36.0	0.78	0.53
S	42.8	1.10	0.74	SW	45.0	1.22	0.82
E	42.8	1.10	0.74	SE	42.8	1.10	0.74
W	45.0	1.22	0.82	NW	45.0	1.22	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
NE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
E	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
SE	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
S	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
SW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
W	1.00	45.0	10.0	2.0	1.00	1.00	1.00	45.0	1.22
NW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

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Pressures: Wu.max = 1.34kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A2 - East coast below 30°, to 50km inland
Region = A
Sub region = 2

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Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	44.9	1.21	0.82	NE	37.8	0.86	0.58
S	44.9	1.21	0.82	SW	47.3	1.34	0.91
E	44.9	1.21	0.82	SE	44.9	1.21	0.82
W	47.3	1.34	0.91	NW	47.3	1.34	0.91

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
NE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
E	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
SE	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
S	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
SW	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
W	1.00	45.0	15.0	2.0	1.05	1.00	1.00	47.3	1.34
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Location - Fig 3.1(A), 3.1(B)

Location = Region A2 - East coast below 30°, to 50km inland
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Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	46.2	1.28	0.86	NE	38.9	0.91	0.61
S	46.2	1.28	0.86	SW	48.6	1.42	0.96
E	46.2	1.28	0.86	SE	46.2	1.28	0.86
W	48.6	1.42	0.96	NW	48.6	1.42	0.96

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
NE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
E	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
SE	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
S	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
SW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
W	1.00	45.0	20.0	2.0	1.08	1.00	1.00	48.6	1.42
NW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A3 - Tasmania & Bass Straight islands & East coast below 30°, 50km to 200km inland, Non-temporary
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.01kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A3 - Tasmania & Bass Straight islands & East coast be
Region = A
Sub region = 3

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes.θ m/s	Wu kPa	Ws kPa
N	41.0	1.01	0.68	NE	34.8	0.73	0.49
S	34.8	0.73	0.49	SW	36.9	0.81	0.55
E	32.8	0.64	0.44	SE	32.8	0.64	0.44
W	41.0	1.01	0.68	NW	41.0	1.01	0.68

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
NE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
E	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
SE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
S	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
SW	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
W	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
NW	1.00	45.0	5.0	2.0	0.91	1.00	1.00	41.0	1.01

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A3 - Tasmania & Bass Straight islands & East coast below 30°, 50km to 200km inland, Non-temporary
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.22kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A3 - Tasmania & Bass Straight islands & East coast be
Region = A
Sub region = 3

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	45.0	1.22	0.82	NE	38.3	0.88	0.59
S	38.3	0.88	0.59	SW	40.5	0.98	0.67
E	36.0	0.78	0.53	SE	36.0	0.78	0.53
W	45.0	1.22	0.82	NW	45.0	1.22	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
NE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
E	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
SE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
S	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
SW	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
W	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
NW	1.00	45.0	10.0	2.0	1.00	1.00	1.00	45.0	1.22

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A3 - Tasmania & Bass Straight islands & East coast below 30°, 50km to 200km inland, Non-temporary
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.34kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A3 - Tasmania & Bass Straight islands & East coast be
Region = A
Sub region = 3

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	47.3	1.34	0.91	NE	40.2	0.97	0.65
S	40.2	0.97	0.65	SW	42.5	1.09	0.73
E	37.8	0.86	0.58	SE	37.8	0.86	0.58
W	47.3	1.34	0.91	NW	47.3	1.34	0.91

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
NE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
E	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
SE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
S	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
SW	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
W	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
NW	1.00	45.0	15.0	2.0	1.05	1.00	1.00	47.3	1.34

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A3 - Tasmania & Bass Straight islands & East coast below 30°, 50km to 200km inland, Non-temporary
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.42kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A3 - Tasmania & Bass Straight islands & East coast be
Region = A
Sub region = 3

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	48.6	1.42	0.96	NE	41.3	1.02	0.69
S	41.3	1.02	0.69	SW	43.7	1.15	0.78
E	38.9	0.91	0.61	SE	38.9	0.91	0.61
W	48.6	1.42	0.96	NW	48.6	1.42	0.96

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
NE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
E	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
SE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
S	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
SW	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
W	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
NW	1.00	45.0	20.0	2.0	1.08	1.00	1.00	48.6	1.42

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A4 - North of 30°, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 0.91kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A4 - North of 30°
Region = A
Sub region = 4

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	36.9	0.81	0.55	NE	36.9	0.81	0.55
S	38.9	0.91	0.61	SW	38.9	0.91	0.61
E	36.9	0.81	0.55	SE	38.9	0.91	0.61
W	38.9	0.91	0.61	NW	38.9	0.91	0.61

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
NE	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
E	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
SE	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
S	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
SW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
W	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91
NW	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A4 - North of 30°, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.10kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A4 - North of 30°
Region = A
Sub region = 4

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	40.5	0.98	0.67	NE	40.5	0.98	0.67
S	42.8	1.10	0.74	SW	42.8	1.10	0.74
E	40.5	0.98	0.67	SE	42.8	1.10	0.74
W	42.8	1.10	0.74	NW	42.8	1.10	0.74

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
NE	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
E	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
SE	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
S	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
SW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
W	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10
NW	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A4 - North of 30°, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.21kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A4 - North of 30°
Region = A
Sub region = 4

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	42.5	1.09	0.73	NE	42.5	1.09	0.73
S	44.9	1.21	0.82	SW	44.9	1.21	0.82
E	42.5	1.09	0.73	SE	44.9	1.21	0.82
W	44.9	1.21	0.82	NW	44.9	1.21	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
NE	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
E	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
SE	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
S	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
SW	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
W	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21
NW	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A4 - North of 30°, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.28kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A4 - North of 30°
Region = A
Sub region = 4

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	43.7	1.15	0.78	NE	43.7	1.15	0.78
S	46.2	1.28	0.86	SW	46.2	1.28	0.86
E	43.7	1.15	0.78	SE	46.2	1.28	0.86
W	46.2	1.28	0.86	NW	46.2	1.28	0.86

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
NE	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
E	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
SE	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
S	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
SW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
W	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28
NW	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A5 - Within 70km of Melbourne GPO, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.01kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A5 - Within 70km of Melbourne GPO
Region = A
Sub region = 5

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	41.0	1.01	0.68	NE	41.0	1.01	0.68
S	36.9	0.81	0.55	SW	41.0	1.01	0.68
E	34.8	0.73	0.49	SE	34.8	0.73	0.49
W	41.0	1.01	0.68	NW	41.0	1.01	0.68

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	1.00	45.0	5.0	2.0	0.91	1.00	1.00	41.0	1.01
NE	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
E	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
SE	0.80	36.0	5.0	2.0	0.91	1.00	1.00	32.8	0.64
S	0.85	38.3	5.0	2.0	0.91	1.00	1.00	34.8	0.73
SW	0.90	40.5	5.0	2.0	0.91	1.00	1.00	36.9	0.81
W	1.00	45.0	5.0	2.0	0.91	1.00	1.00	41.0	1.01
NW	0.95	42.8	5.0	2.0	0.91	1.00	1.00	38.9	0.91

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A5 - Within 70km of Melbourne GPO, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.22kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A5 - Within 70km of Melbourne GPO
Region = A
Sub region = 5

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	45.0	1.22	0.82	NE	45.0	1.22	0.82
S	40.5	0.98	0.67	SW	45.0	1.22	0.82
E	38.3	0.88	0.59	SE	38.3	0.88	0.59
W	45.0	1.22	0.82	NW	45.0	1.22	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	1.00	45.0	10.0	2.0	1.00	1.00	1.00	45.0	1.22
NE	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
E	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
SE	0.80	36.0	10.0	2.0	1.00	1.00	1.00	36.0	0.78
S	0.85	38.3	10.0	2.0	1.00	1.00	1.00	38.3	0.88
SW	0.90	40.5	10.0	2.0	1.00	1.00	1.00	40.5	0.98
W	1.00	45.0	10.0	2.0	1.00	1.00	1.00	45.0	1.22
NW	0.95	42.8	10.0	2.0	1.00	1.00	1.00	42.8	1.10

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A5 - Within 70km of Melbourne GPO, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.34kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A5 - Within 70km of Melbourne GPO
Region = A
Sub region = 5

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	47.3	1.34	0.91	NE	47.3	1.34	0.91
S	42.5	1.09	0.73	SW	47.3	1.34	0.91
E	40.2	0.97	0.65	SE	40.2	0.97	0.65
W	47.3	1.34	0.91	NW	47.3	1.34	0.91

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	1.00	45.0	15.0	2.0	1.05	1.00	1.00	47.3	1.34
NE	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
E	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
SE	0.80	36.0	15.0	2.0	1.05	1.00	1.00	37.8	0.86
S	0.85	38.3	15.0	2.0	1.05	1.00	1.00	40.2	0.97
SW	0.90	40.5	15.0	2.0	1.05	1.00	1.00	42.5	1.09
W	1.00	45.0	15.0	2.0	1.05	1.00	1.00	47.3	1.34
NW	0.95	42.8	15.0	2.0	1.05	1.00	1.00	44.9	1.21

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.05

Dome Consulting Aust

Design: (Wind Analysis WA01) Region A5 - Within 70km of Melbourne GPO, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.42kPa, Ws/Wu = 0.68

Location - Fig 3.1(A), 3.1(B)

Location = Region A5 - Within 70km of Melbourne GPO
Region = A
Sub region = 5

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
Design working life = 50 Years AS1170.0 Cl F3
Cyclonic = N (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years
Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 45 m/s For a 1:500 APE - Cl 3.2, Table 3.1
Serv. regional wind speed (VR.s) = 37 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
Factor for reg. C or D (F) = 1.00 Cl 3.4
Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
Minimum Ultimate speed (Vdes,θ) = 30 m/s
Ratio VR.s / VR = 0.82
Ratio Ws / Wu = 0.68 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	48.6	1.42	0.96	NE	48.6	1.42	0.96
S	43.7	1.15	0.78	SW	48.6	1.42	0.96
E	41.3	1.02	0.69	SE	41.3	1.02	0.69
W	48.6	1.42	0.96	NW	48.6	1.42	0.96

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	1.00	45.0	20.0	2.0	1.08	1.00	1.00	48.6	1.42
NE	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
E	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
SE	0.80	36.0	20.0	2.0	1.08	1.00	1.00	38.9	0.91
S	0.85	38.3	20.0	2.0	1.08	1.00	1.00	41.3	1.02
SW	0.90	40.5	20.0	2.0	1.08	1.00	1.00	43.7	1.15
W	1.00	45.0	20.0	2.0	1.08	1.00	1.00	48.6	1.42
NW	0.95	42.8	20.0	2.0	1.08	1.00	1.00	46.2	1.28

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region B, Non-temporary structure
Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years
Pressures: Wu.max = 1.46kPa, Ws/Wu = 0.47

Location - Fig 3.1(A), 3.1(B)

Location = Region B
 Region = B

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom
 Design working life = 50 Years AS1170.0 Table F2
 Cyclonic = N (Y)es, (N)o Major element = Y (Y)es, (N)o
 Annual prob. of exceedance (APE) = 500 years
 Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 57 m/s For a 1:500 APE - Cl 3.2, Table 3.1
 Serv. regional wind speed (VR.s) = 39 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1
 Factor for reg. C or D (F) = 1.00 Cl 3.4
 Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)
 Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3
 Ratio VR.s / VR = 0.68
 Ratio Ws / Wu = 0.47 Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	49.3	1.46	0.68	NE	49.3	1.46	0.68
S	49.3	1.46	0.68	SW	49.3	1.46	0.68
E	49.3	1.46	0.68	SE	49.3	1.46	0.68
W	49.3	1.46	0.68	NW	49.3	1.46	0.68

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
NE	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
E	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
SE	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
S	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
SW	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
W	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46
NW	0.95	54.2	5.0	2.0	0.91	1.00	1.00	49.3	1.46

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region B, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 1.76kPa, Ws/Wu =0.47

Location - Fig 3.1(A), 3.1(B)

Location = Region B

Region = B

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = N (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 57 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 39 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (F) = 1.00 Cl 3.4

Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.47

Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	54.2	1.76	0.82
S	54.2	1.76	0.82
E	54.2	1.76	0.82
W	54.2	1.76	0.82

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	54.2	1.76	0.82
SW	54.2	1.76	0.82
SE	54.2	1.76	0.82
NW	54.2	1.76	0.82

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
NE	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
E	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
SE	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
S	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
SW	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
W	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76
NW	0.95	54.2	10.0	2.0	1.00	1.00	1.00	54.2	1.76

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region B, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 1.94kPa, Ws/Wu = 0.47

Location - Fig 3.1(A), 3.1(B)

Location = Region B

Region = B

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = N (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 57 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 39 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (F) = 1.00 Cl 3.4

Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.47

Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	56.9	1.94	0.91
S	56.9	1.94	0.91
E	56.9	1.94	0.91
W	56.9	1.94	0.91

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	56.9	1.94	0.91
SW	56.9	1.94	0.91
SE	56.9	1.94	0.91
NW	56.9	1.94	0.91

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
NE	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
E	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
SE	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
S	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
SW	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
W	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94
NW	0.95	54.2	15.0	2.0	1.05	1.00	1.00	56.9	1.94

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region B, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Non-Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 2.05kPa, Ws/Wu = 0.47

Location - Fig 3.1(A), 3.1(B)

Location = Region B

Region = B

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = N (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years

Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 57 m/s

For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 39 m/s

For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (F) = 1.00 Cl 3.4

Factor for reg. C or D (F.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s

Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.47

Crane W20 = 0.24 kPa

Design wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	58.5	2.05	0.96
S	58.5	2.05	0.96
E	58.5	2.05	0.96
W	58.5	2.05	0.96

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	58.5	2.05	0.96
SW	58.5	2.05	0.96
SE	58.5	2.05	0.96
NW	58.5	2.05	0.96

Site wind data for non-cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
NE	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
E	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
SE	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
S	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
SW	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
W	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05
NW	0.95	54.2	20.0	2.0	1.08	1.00	1.00	58.5	2.05

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region C, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 2.33kPa, Ws/Wu = 0.46

Location - Fig 3.1(A), 3.1(B)

Location = Region C

Region = C

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 69 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 47 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fc) = 1.05 Cl 3.4

Factor for reg. C or D (Fc.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.46

Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	62.3	2.33	1.08
S	62.3	2.33	1.08
E	62.3	2.33	1.08
W	62.3	2.33	1.08

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	62.3	2.33	1.08
SW	62.3	2.33	1.08
SE	62.3	2.33	1.08
NW	62.3	2.33	1.08

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
NE	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
E	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
SE	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
S	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
SW	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
W	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33
NW	0.95	65.6	5.0	2.0	0.95	1.00	1.00	62.3	2.33

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region C, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 2.58kPa, Ws/Wu = 0.46

Location - Fig 3.1(A), 3.1(B)

Location = Region C

Region = C

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 69 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 47 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fc) = 1.05 Cl 3.4

Factor for reg. C or D (Fc.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.46 Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	65.6	2.58	1.20	NE	65.6	2.58	1.20
S	65.6	2.58	1.20	SW	65.6	2.58	1.20
E	65.6	2.58	1.20	SE	65.6	2.58	1.20
W	65.6	2.58	1.20	NW	65.6	2.58	1.20

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
NE	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
E	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
SE	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
S	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
SW	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
W	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58
NW	0.95	65.6	10.0	2.0	1.00	1.00	1.00	65.6	2.58

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region C, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 2.95kPa, Ws/Wu = 0.46

Location - Fig 3.1(A), 3.1(B)

Location = Region C

Region = C

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years

Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 69 m/s

For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 47 m/s

For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fc) = 1.05 Cl 3.4

Factor for reg. C or D (Fc.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s

Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.46

Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	70.1	2.95	1.37
S	70.1	2.95	1.37
E	70.1	2.95	1.37
W	70.1	2.95	1.37

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	70.1	2.95	1.37
SW	70.1	2.95	1.37
SE	70.1	2.95	1.37
NW	70.1	2.95	1.37

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
NE	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
E	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
SE	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
S	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
SW	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
W	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95
NW	0.95	65.6	15.0	2.0	1.07	1.00	1.00	70.1	2.95

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region C, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 3.29kPa, Ws/Wu = 0.46

Location - Fig 3.1(A), 3.1(B)

Location = Region C

Region = C

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 69 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 47 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fc) = 1.05 Cl 3.4

Factor for reg. C or D (Fc.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.68

Ratio Ws / Wu = 0.46 Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	74.1	3.29	1.53	NE	74.1	3.29	1.53
S	74.1	3.29	1.53	SW	74.1	3.29	1.53
E	74.1	3.29	1.53	SE	74.1	3.29	1.53
W	74.1	3.29	1.53	NW	74.1	3.29	1.53

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
NE	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
E	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
SE	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
S	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
SW	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
W	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29
NW	0.95	65.6	20.0	2.0	1.13	1.00	1.00	74.1	3.29

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region D, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 3.78kPa, Ws/Wu = 0.36

Location - Fig 3.1(A), 3.1(B)

Location = Region D

Region = D

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 88 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 53 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fd) = 1.10 Cl 3.4

Factor for reg. C or D (Fd.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.60

Ratio Ws / Wu = 0.36 Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	79.4	3.78	1.37	NE	79.4	3.78	1.37
S	79.4	3.78	1.37	SW	79.4	3.78	1.37
E	79.4	3.78	1.37	SE	79.4	3.78	1.37
W	79.4	3.78	1.37	NW	79.4	3.78	1.37

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
NE	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
E	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
SE	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
S	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
SW	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
W	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78
NW	0.95	83.6	5.0	2.0	0.95	1.00	1.00	79.4	3.78

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region D, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 4.19kPa, Ws/Wu = 0.36

Location - Fig 3.1(A), 3.1(B)

Location = Region D

Region = D

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 88 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 53 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fd) = 1.10 Cl 3.4

Factor for reg. C or D (Fd.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.60

Ratio Ws / Wu = 0.36 Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	83.6	4.19	1.52	NE	83.6	4.19	1.52
S	83.6	4.19	1.52	SW	83.6	4.19	1.52
E	83.6	4.19	1.52	SE	83.6	4.19	1.52
W	83.6	4.19	1.52	NW	83.6	4.19	1.52

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
NE	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
E	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
SE	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
S	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
SW	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
W	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19
NW	0.95	83.6	10.0	2.0	1.00	1.00	1.00	83.6	4.19

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region D, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 4.80kPa, Ws/Wu = 0.36

Location - Fig 3.1(A), 3.1(B)

Location = Region D

Region = D

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o

Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years

Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 88 m/s

For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 53 m/s

For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fd) = 1.10 Cl 3.4

Factor for reg. C or D (Fd.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s

Cl 2.3

Ratio VR.s / VR = 0.60

Ratio Ws / Wu = 0.36

Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	89.5	4.80	1.74
S	89.5	4.80	1.74
E	89.5	4.80	1.74
W	89.5	4.80	1.74

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
NE	89.5	4.80	1.74
SW	89.5	4.80	1.74
SE	89.5	4.80	1.74
NW	89.5	4.80	1.74

Site wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
NE	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
E	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
SE	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
S	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
SW	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
W	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80
NW	0.95	83.6	15.0	2.0	1.07	1.00	1.00	89.5	4.80

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

Wind V4.02

Dome Consulting Aust

Design: (Wind Analysis WA01) Region D, Non-temporary structure

Importance: All other structures not included in 1,3, or 4, Life = 50 years, Cyclonic, APE = 500 years, APE.Serv = 25 years

Pressures: Wu.max = 5.35kPa, Ws/Wu = 0.36

Location - Fig 3.1(A), 3.1(B)

Location = Region D

Region = D

Importance All other structures not included in 1,3, or 4

Importance level = 2 1,2,3,4,(C)ustom

Design working life = 50 Years AS1170.0 Table F2

Cyclonic = Y (Y)es, (N)o Major element = Y (Y)es, (N)o

Annual prob. of exceedance (APE) = 500 years

Annual prob. of exceed. Serv. (APE.s) = 25 years Ref. AS1170.0 - App C

Design wind speed (Vdes,q) - Cl 2.3

Ultimate regional wind speed (VR) = 88 m/s For a 1:500 APE - Cl 3.2, Table 3.1

Serv. regional wind speed (VR.s) = 53 m/s For a 1:25 APE.s - Cl 3.2, Table 3.1

Factor for reg. C or D (Fd) = 1.10 Cl 3.4

Factor for reg. C or D (Fd.s) = 1.00 (R < 50 yrs)

Minimum Ultimate speed (Vdes,θ) = 30 m/s Cl 2.3

Ratio VR.s / VR = 0.60

Ratio Ws / Wu = 0.36 Crane W20 = 0.24 kPa

Design wind data for cyclonic areas with APE of 1:500 years

Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa	Dir (b)	Vdes,θ m/s	Wu kPa	Ws kPa
N	94.5	5.35	1.94	NE	94.5	5.35	1.94
S	94.5	5.35	1.94	SW	94.5	5.35	1.94
E	94.5	5.35	1.94	SE	94.5	5.35	1.94
W	94.5	5.35	1.94	NW	94.5	5.35	1.94

Site wind data for cyclonic areas with APE of 1:500 years

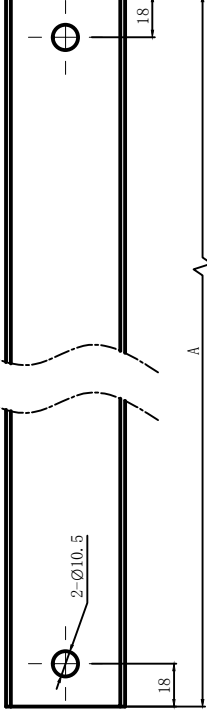
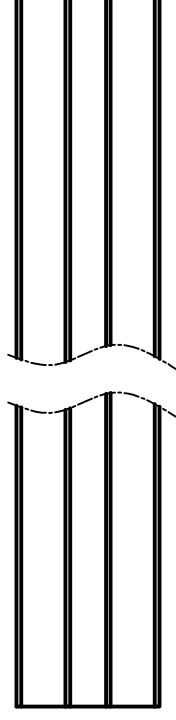
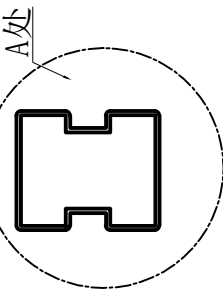
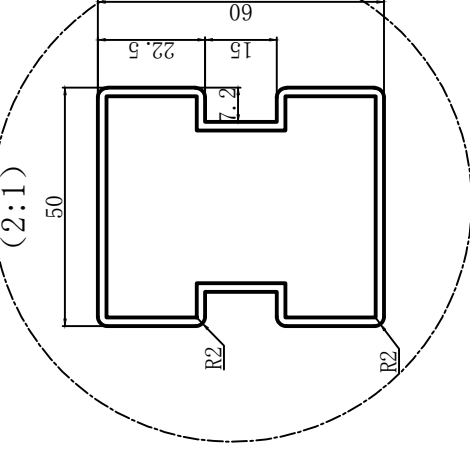
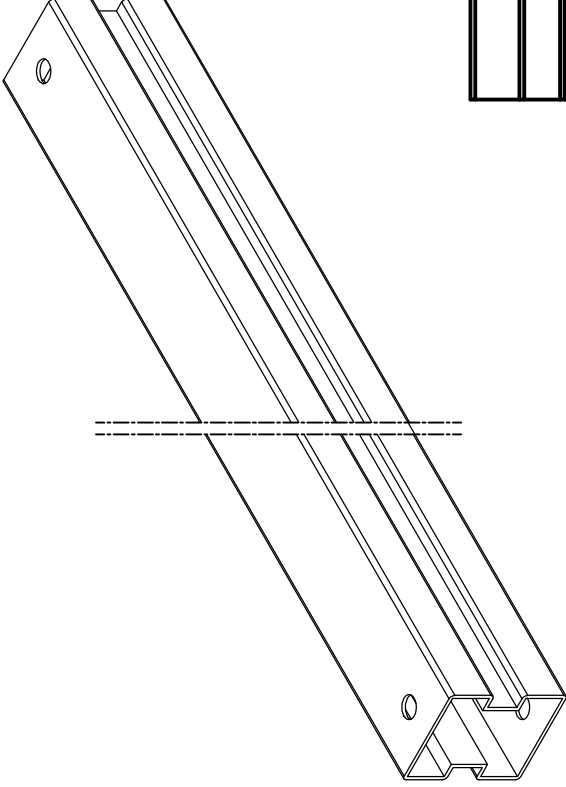
Dir (b)	Md (*1)	VR*Md	Ave. Ht (z) m	Cat	Mz	Ms	Mt	Vsit,β m/s	Wu kPa
N	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
NE	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
E	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
SE	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
S	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
SW	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
W	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35
NW	0.95	83.6	20.0	2.0	1.13	1.00	1.00	94.5	5.35

*1 - Refer to Table 3.2 and Cl 3.3, TC interpolated

COMPONENT DETAILS

本图须加盖有效版本章, 否则一律无效
This drawing is valid only if it is accompanied with version stamp

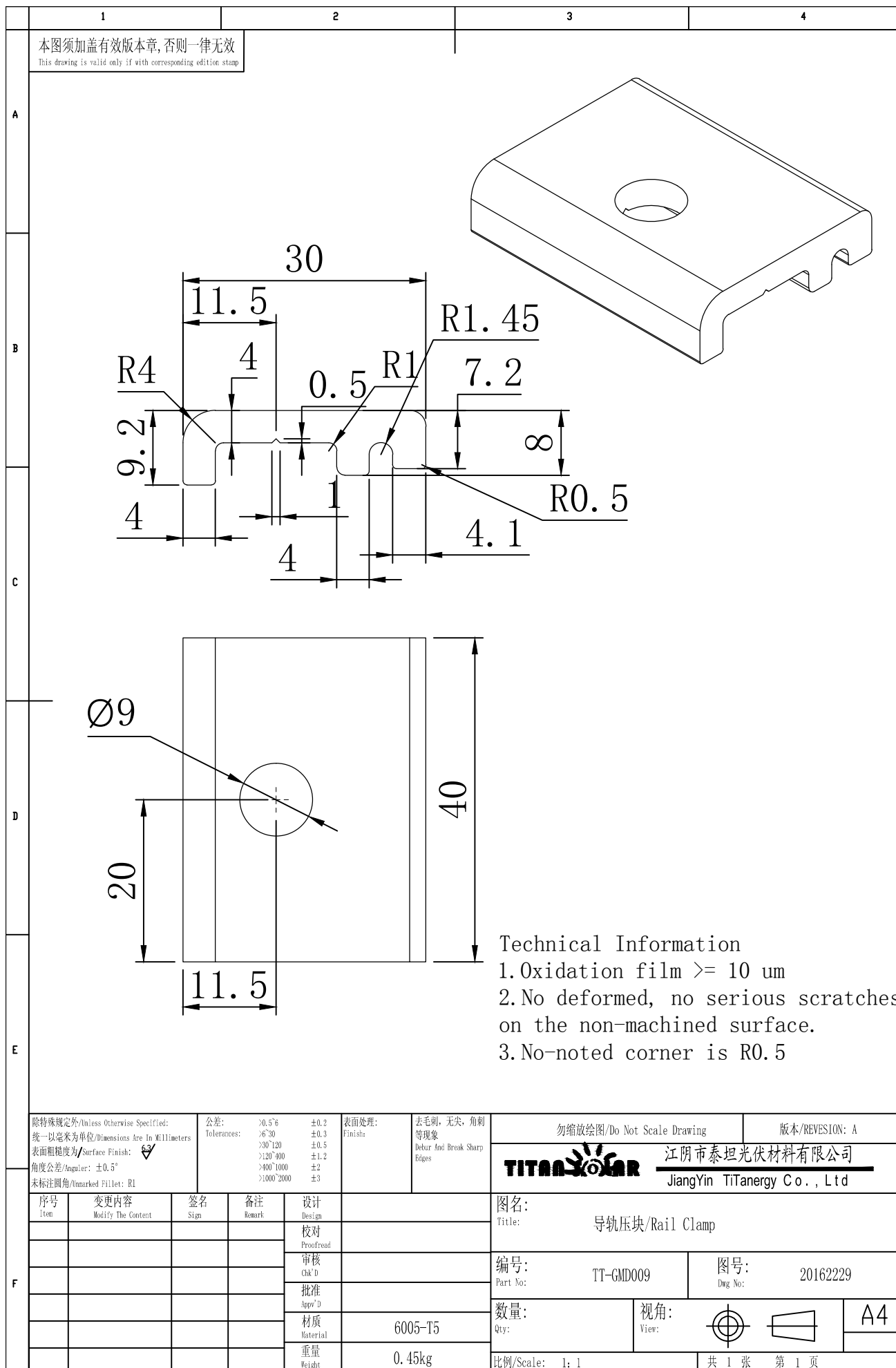
A 处放大
(2:1)



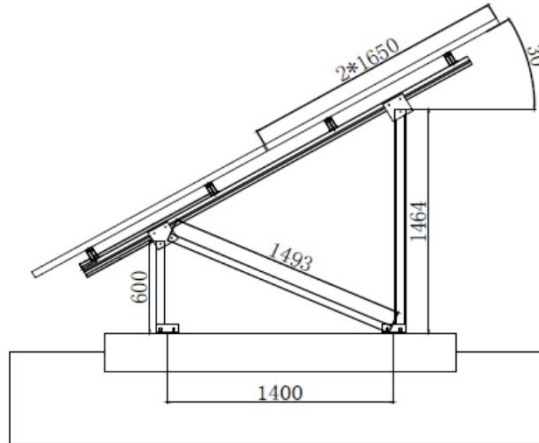
- Technical Information
- 1.Oxidation film $\geq 10\text{ }\mu\text{m}$
 - 2.No deformed, no serious scratches on the non-machined surface.
 - 3.No-noted corner is R0.5

标示		尺寸规格	
A	1580	1493	1372

勿须标注(Do Not Scale Drawing)		版本(VERSION): A	
江阳市泰坦光伏材料有限公司 Jiangyin Titandey Co., Ltd		图名: Title: 方铝/Al-Tube	
图号: Part No: TT-000007		数量: Qty: 6005-T5	
视图: View: 1:1		比例(Scale): 1:1	
表面处理: Surface: 阳极氧化 Anodized		公差: Tolerance: ±0.2	
粗糙度: Surface Roughness: Ra 1.6		设计: Design: 设计	
重量: Weight: 1.16 kg/m		材料: Material: 6005-T5	



COMPONENT DESIGN



Wind Analysis

AS1170	Vsit	=	VR*Md*(Mz,cat*Ms*Mt)		
Table 3.1	V100	=	41	Non- cyclonic region A	
For Non-cyclonic	V100	=	48	Non- cyclonic region B	
Table 3.2	V100 Fc	=	56	Cyclonic region	Fc 1
	V100 Fd	=	66	Cyclonic region	Fd 1
	Va	=	37.31	m/s	Md 1.00 Any direction
	Vb	=	43.68	m/s	Mz,cat 0.91 Categ 2, z<=3
	Vc	=	50.96		Ms 1.00
	Vd	=	60.06		Mh 1.00
					Ka 1.00
					Kc 1.00
					Kl 1.50 considered on beam
Ref. Table D4(A)	P = 0.5*pair*{Vdes,Θ}²*Cfig*Cdyn				Kp 1.00
Net pressure coefficient	Cfig -uphill = Cpn*Ka*Kl				pair 1.20 N/m3
	2.00				Cpn 1.33 h/d = 0.5

Design wind Pressures

Pressure on Uphill	1.67	kN/m²	Non- cyclonic region A
Pressure on Uphill	2.28	kN/m²	Non- cyclonic region B
Pressure on Uphill	3.11	kN/m²	Cyclonic region C
Pressure on Uphill	4.32	kN/m²	Cyclonic region D
Panel self weight =	0.15	kN/m²	

Cross Rail Capacity

$\phi M_{sx} = 3.685 \text{ kN.m}$ Assume simply supported rail $\Rightarrow M = wL^2/8$

Rearrange and solving for L (m) 3.30 Rails per frame

Load width per rail 1.27 m
Width 4.2 m

Region	kN/m	L Rail (m)	Self w	Angle	Pile	PAD
A	2.12	3.11	1.96	15	10.50	0.77
B	2.91	2.65	1.67	15	12.29	0.86
C	3.96	2.27	1.43	15	14.34	0.95
D	5.50	1.54	0.97	15	13.52	0.93

Region	kN/m	L Rail (m)	Self w	Angle	Pile	PAD
A	2.12	3.11	1.96	30	9.42	0.72
B	2.91	2.65	1.67	30	11.02	0.81
C	3.96	2.27	1.43	30	12.86	0.89
D	5.50	1.54	0.97	30	12.13	0.88

Region	kN/m	L Rail (m)	Self w	Angle	Pile	PAD
A	2.12	3.11	1.96	45	7.69	0.63
B	2.91	2.65	1.67	45	9.00	0.71
C	3.96	2.27	1.43	45	10.50	0.79
D	5.50	1.54	0.97	45	9.90	0.79

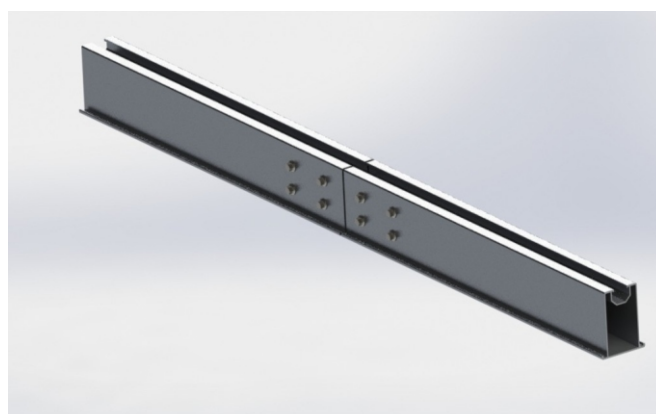
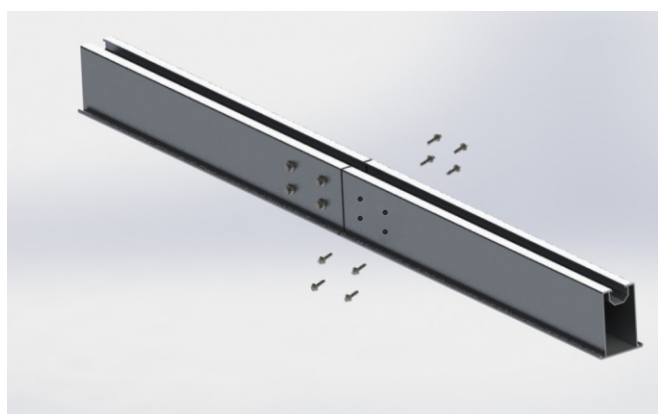
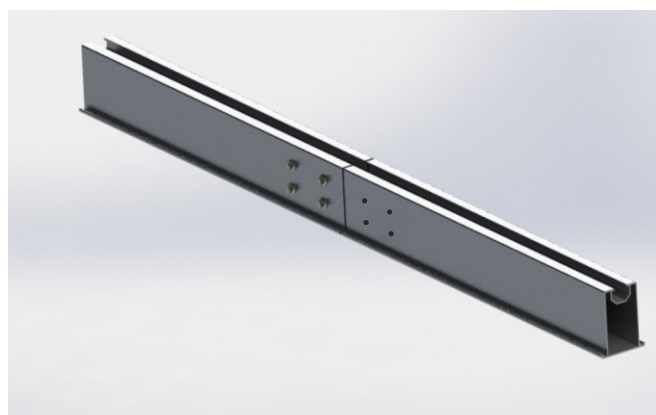
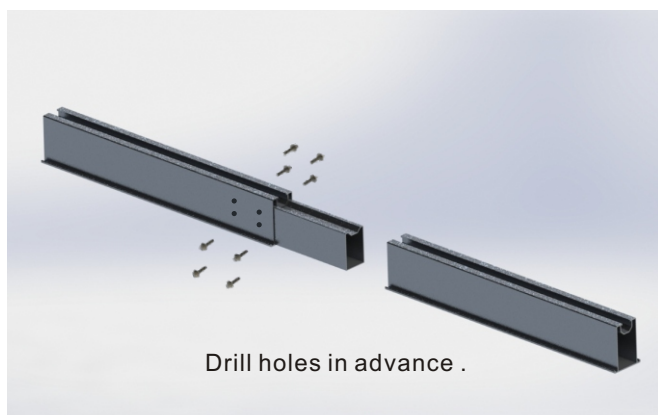
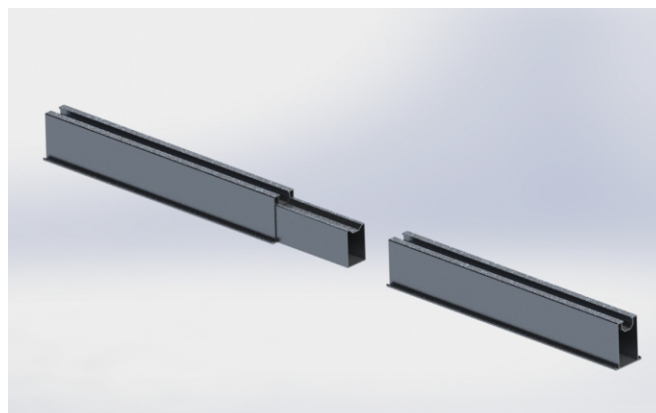
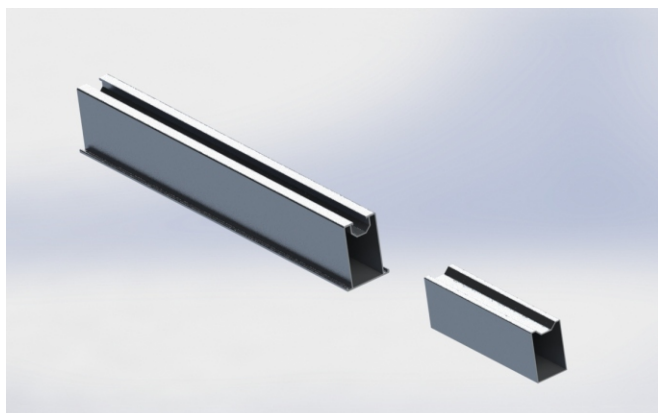
INSTALLATION MANUAL / GUIDE

GROUND MOUNTING SYSTEM INSTALLATION MANUAL

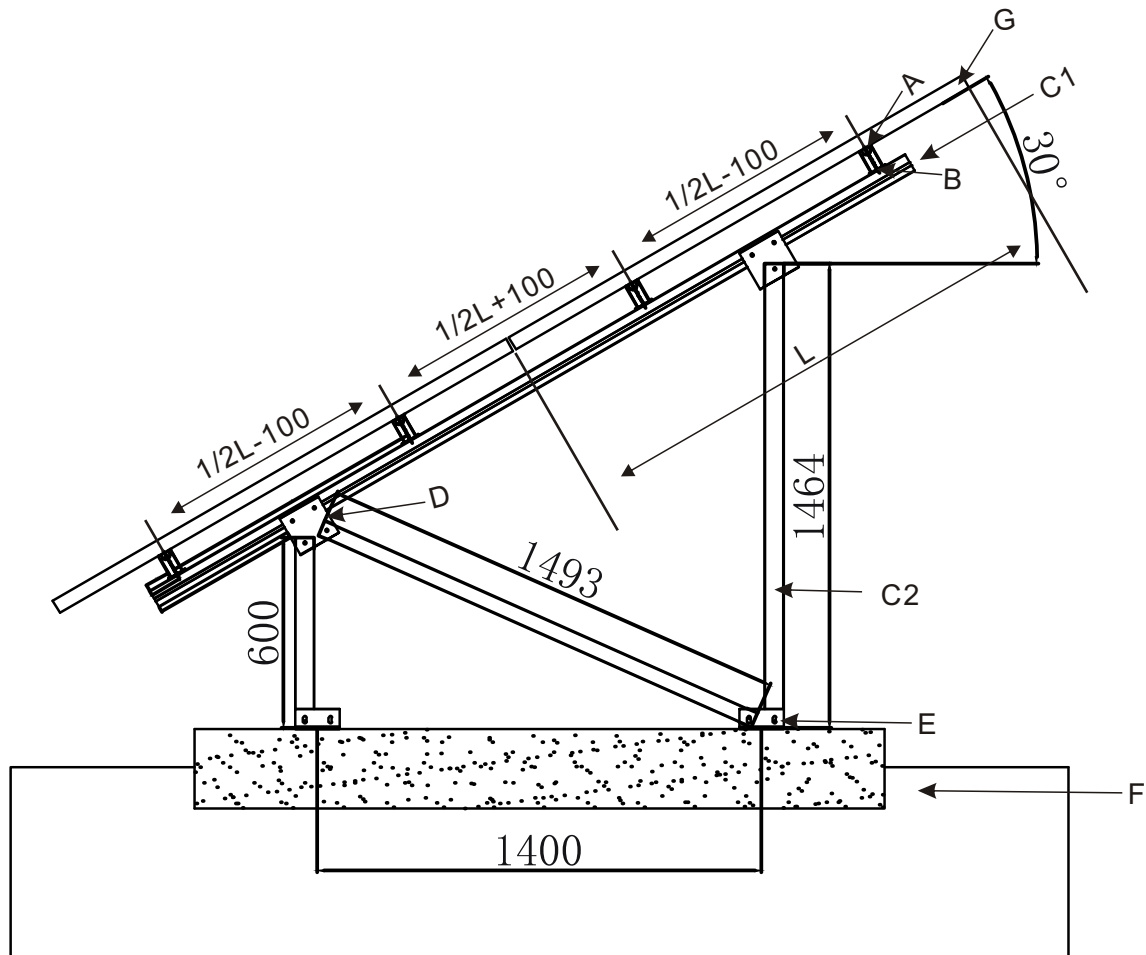
JIANGYIN TITANERGY CO.,LTD

APRIL 2016, REV 1

Using the special splice kits to connect Titan Solar's aluminium HD rail makes installation easier, more flexible and convenient. HD Rails can be extended indefinitely improving efficiency, minimising wastage and reducing the overall cost of installation.



▶ Planning the array layout



L=Solar Panel Length

A=HD Rail Clamp (use T type M8*25screws connecting to the rail)

B=60*80 Rail (put the sliding rail with barb up)

C1= 60*60 Square Tube (use M10*25 screws connecting to H connecting clip)

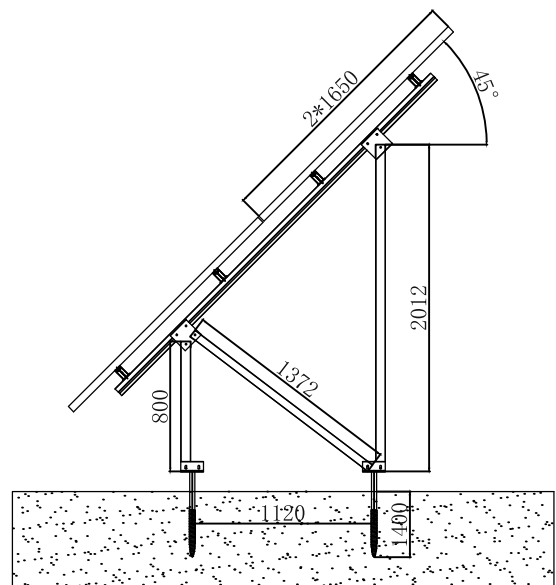
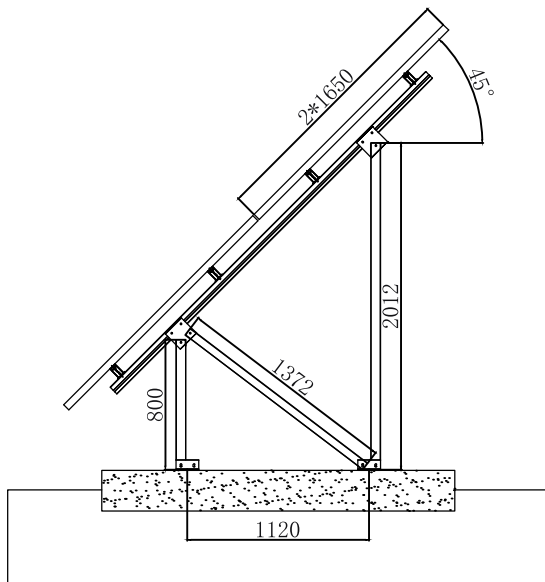
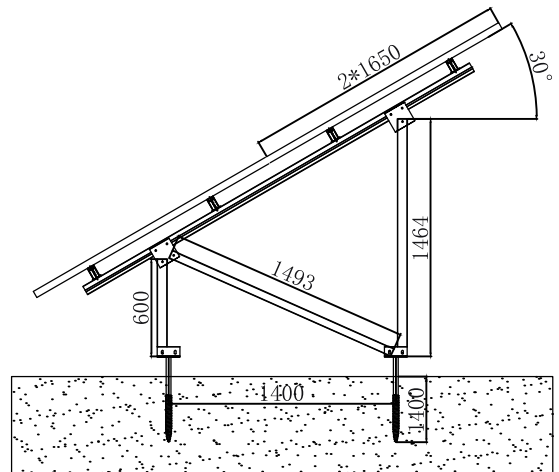
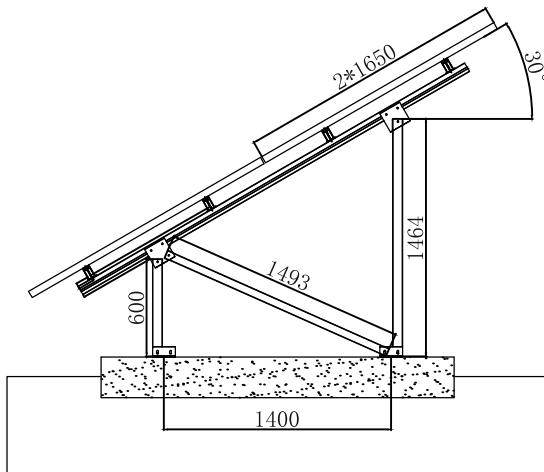
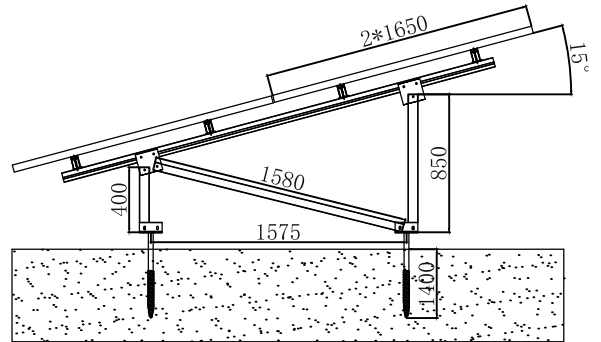
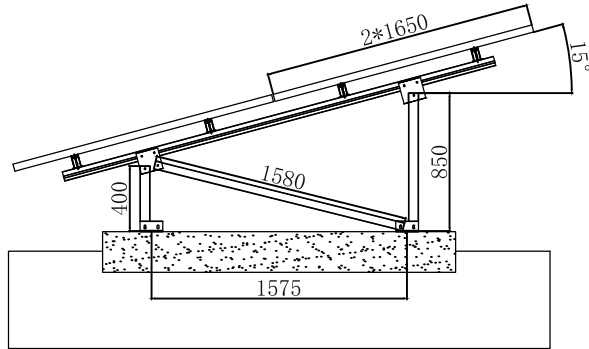
C2= 60*60Square Tube

D=H Connector

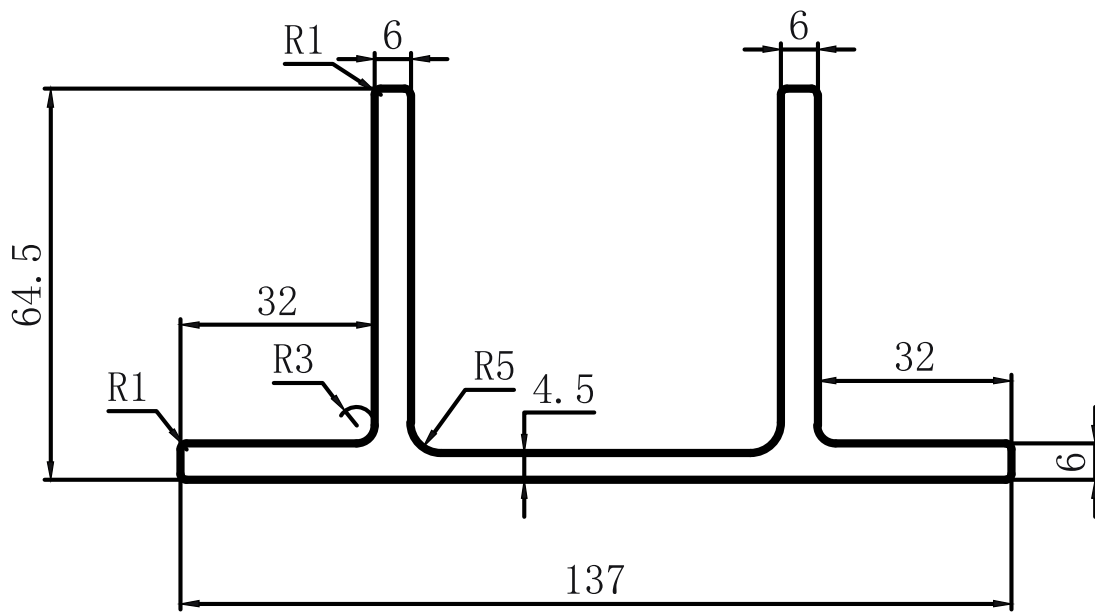
E=Base Dimension (use M10*90 screws connecting to C2)

F=Concrete Foundation (use M10*100 setscrews connecting to E)

G=Solar Panels(1650*992*40)



Base Dimension:



(mm)

Using M16 Grade 5.8 Carbon Steel anchor studs with Ramset Chemset REO502 chemical injection anchoring system. Minimum anchor embedment depth of 90mm with concrete strength of 25MPa.

▶ Maximum spacing between legs:

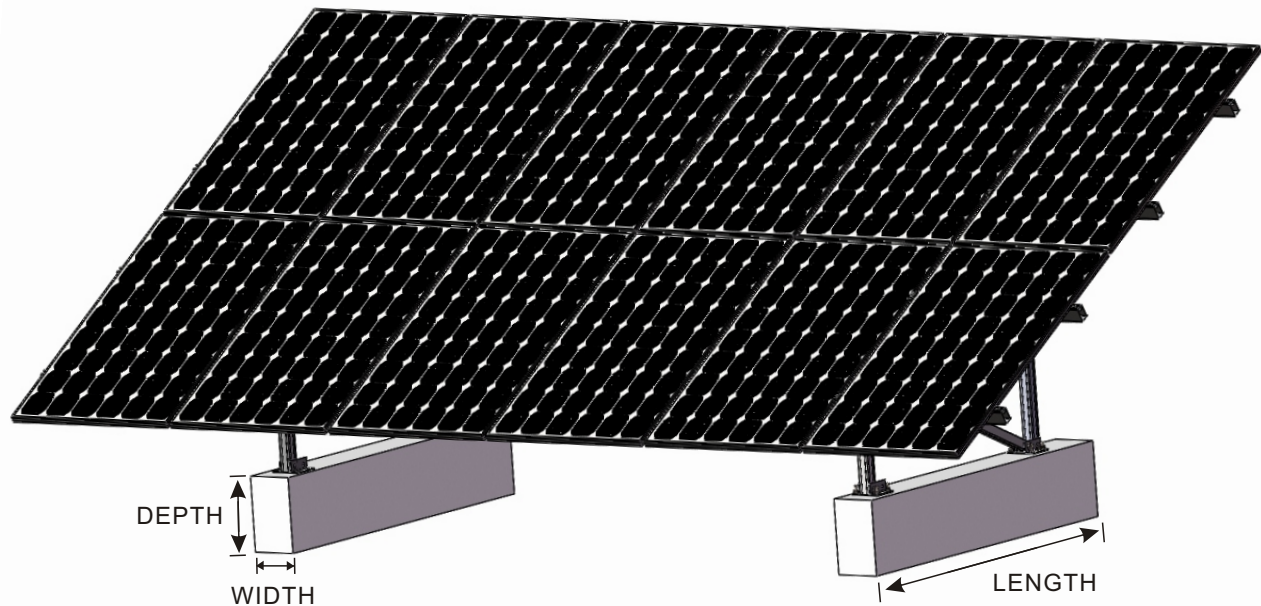


Table 1.0 Maximum Spacing L2 between frame supports (mm)

Wind Zone	A	B	C	D
Wind Speed Vs(m/s)	41	48	56	66
Slope 15°	3600	3100	2700	1800
Slope 30°	3100	2800	2200	1800
Slope 45°	2700	2300	2000	1400

Cantilever span L1 shall not exceed 50% of the internal span L2

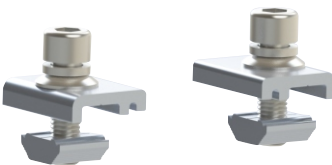
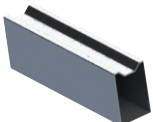
Table 2.0 Minimum dimension of concrete footings Length (m) × Width (m) × Depth (m)		
Slope	Wind Zone A/B	Wind Zone C/D
15°	2.0×1.0×0.5	2.0×1.0×0.5
30°	2.0×1.0×0.5	2.0×1.0×0.5
45°	2.0×1.0×0.5	2.0×1.0×0.5

Minimum reinforcement : N16@200 Each Way Top &Bottom

Table 3.0 Ultimate design loads for each of the Piles(Pullout)				
Slope	Wind Zone A/B		Wind Zone C/D	
	Uplift (kN)	Shear(kN)	Uplift(kN)	Shear(kN)
15°	20.0	5.0	20.0	5.0
30°	20.0	5.0	20.0	5.0
45°	20.0	5.0	20.0	5.0

Piles should be on site tested to achieve minimum pullout capacity and have a minumum bearing capacity of 10 kN.

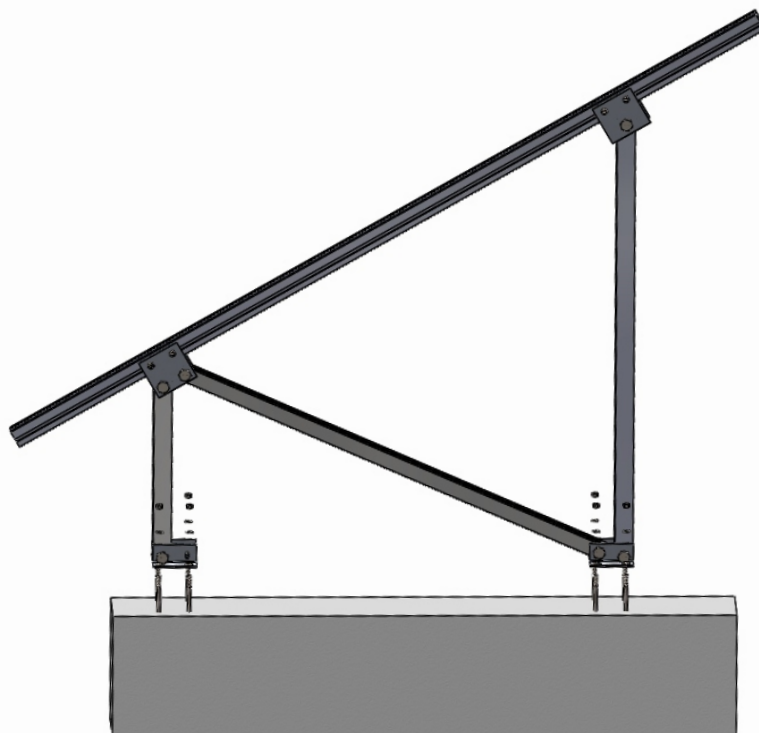
► Components List

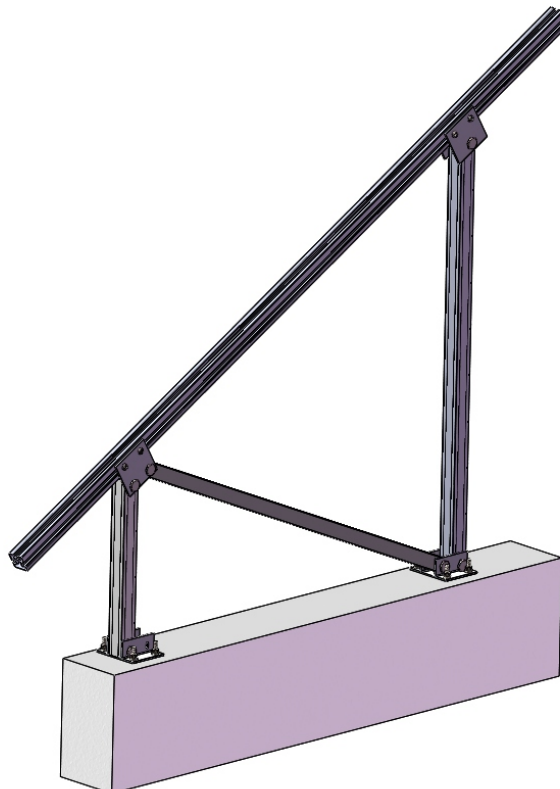
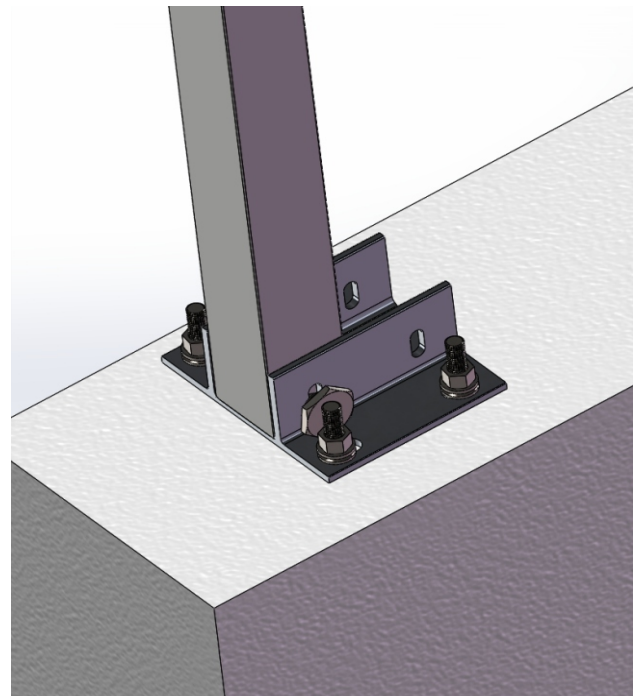
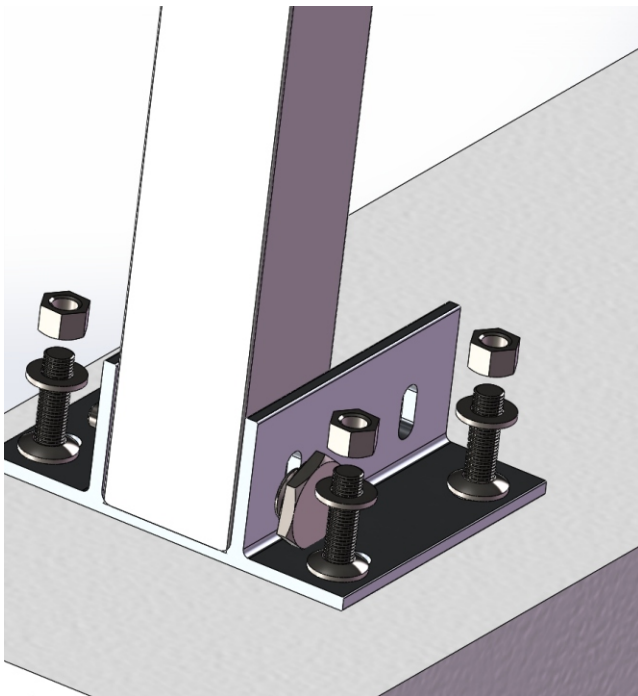
NO.	Product Name	Picture	Material	Remark
1	HD Rail		AL 6005-T5	
2	End Clamp		AL 6005-T5	Includes : a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
3	Inter Clamp		AL 6005-T5	Includes : a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
4	HD Rail Clamp		AL 6005-T5	Includes : a. one piece of A2-70 M8 Hexagon screw b. one piece of aluminum fixing nut
5	pre-assembled Leg		AL 6005-T5 & SUS 304	
6	HD Rail Splice Kit		AL 6005-T5	Includes : four pieces of $\Phi 6.3$ mm Stainless steel self-tapping screws

► Installation Steps

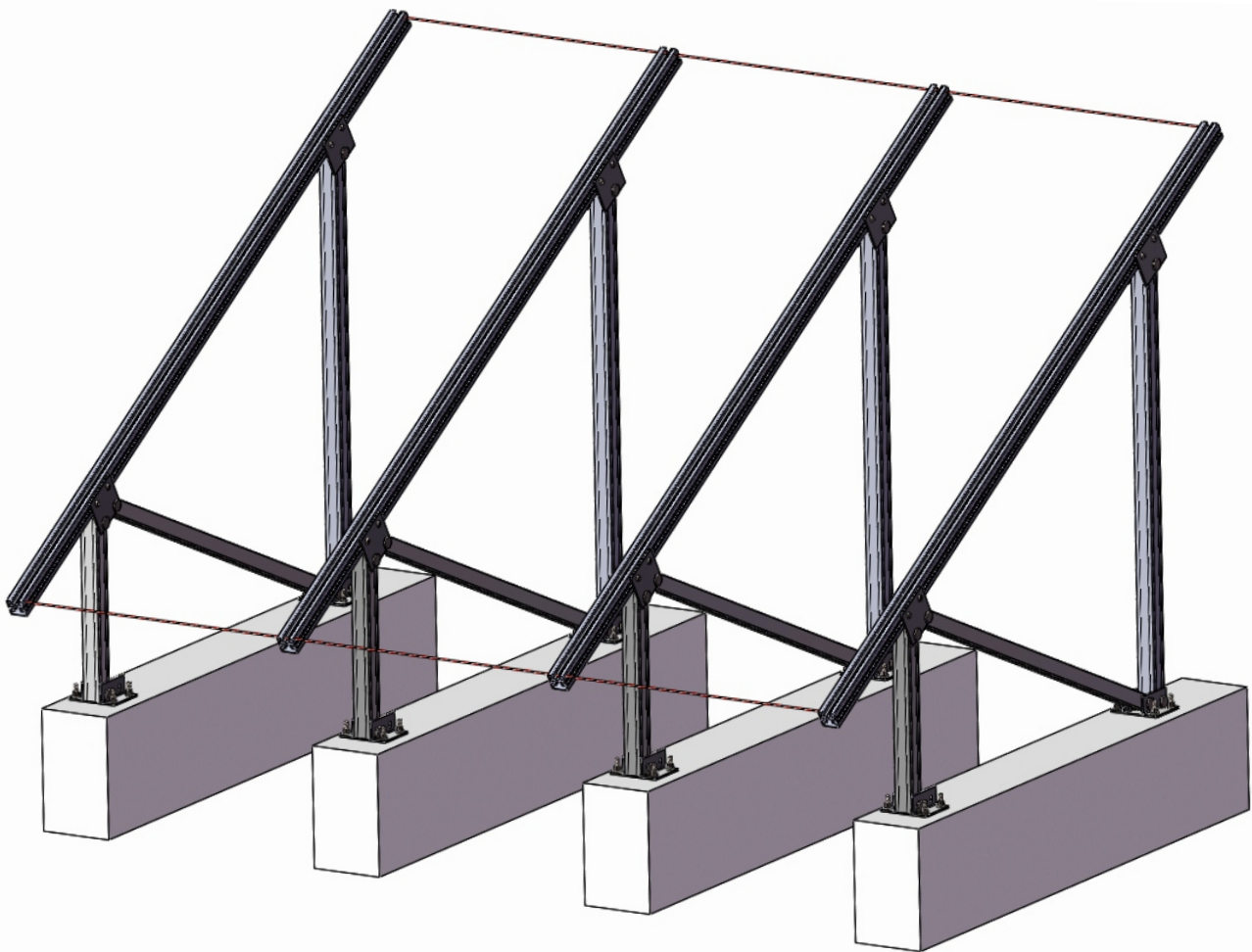
1. Unfasten the pre-assembled front leg, rear leg and connecting tube from the support structure. Fasten the base of the legs to the pre-prepared anchor bolts. Tighten anchor bolts to secure.



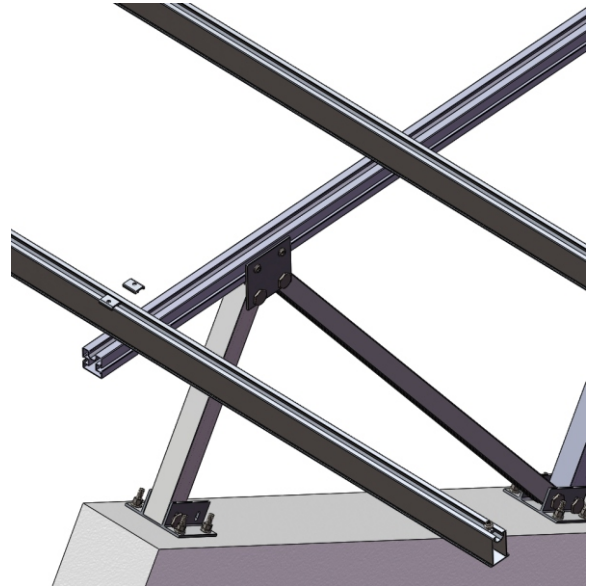
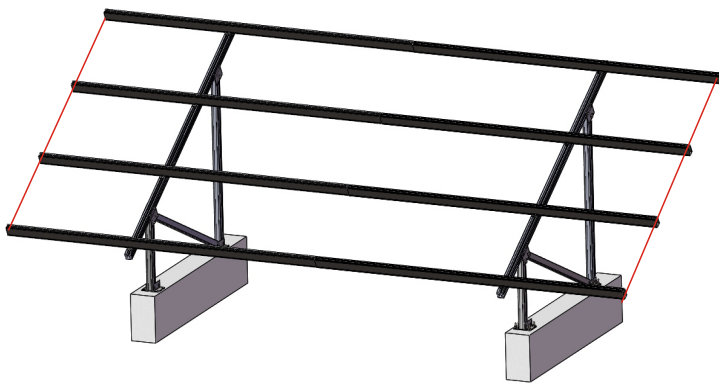




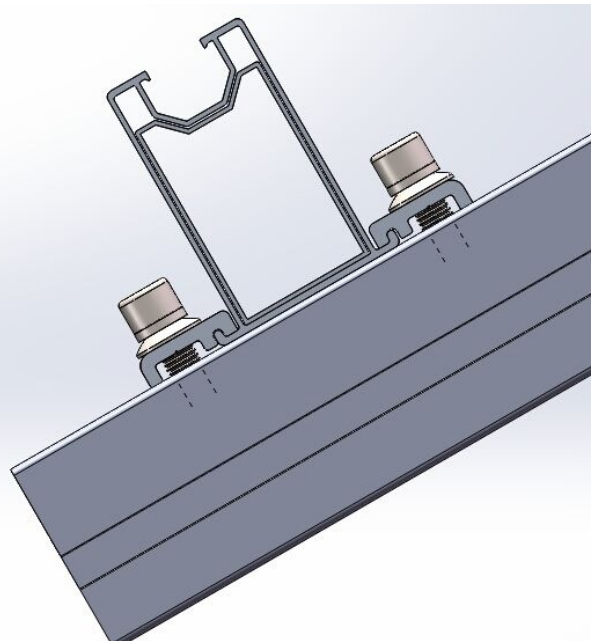
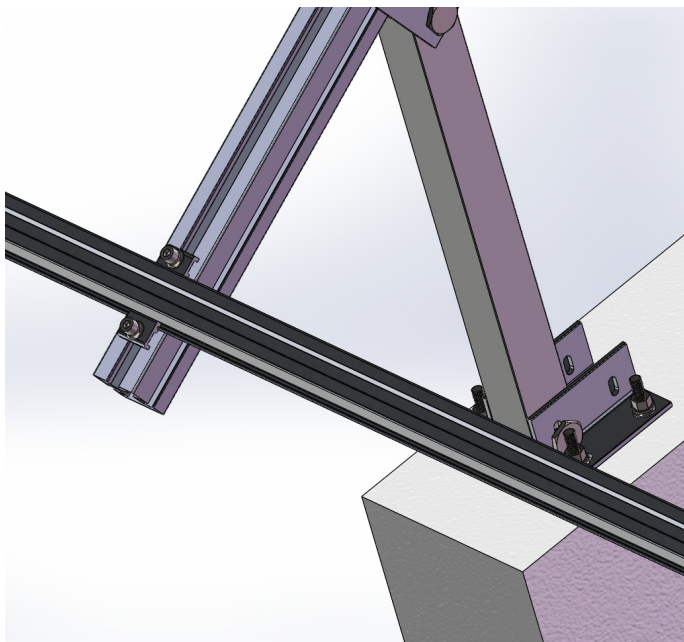
2.Repeat the above operation in accordance with the planned array layout. It is important to ensure that the beams are kept in line with each other.

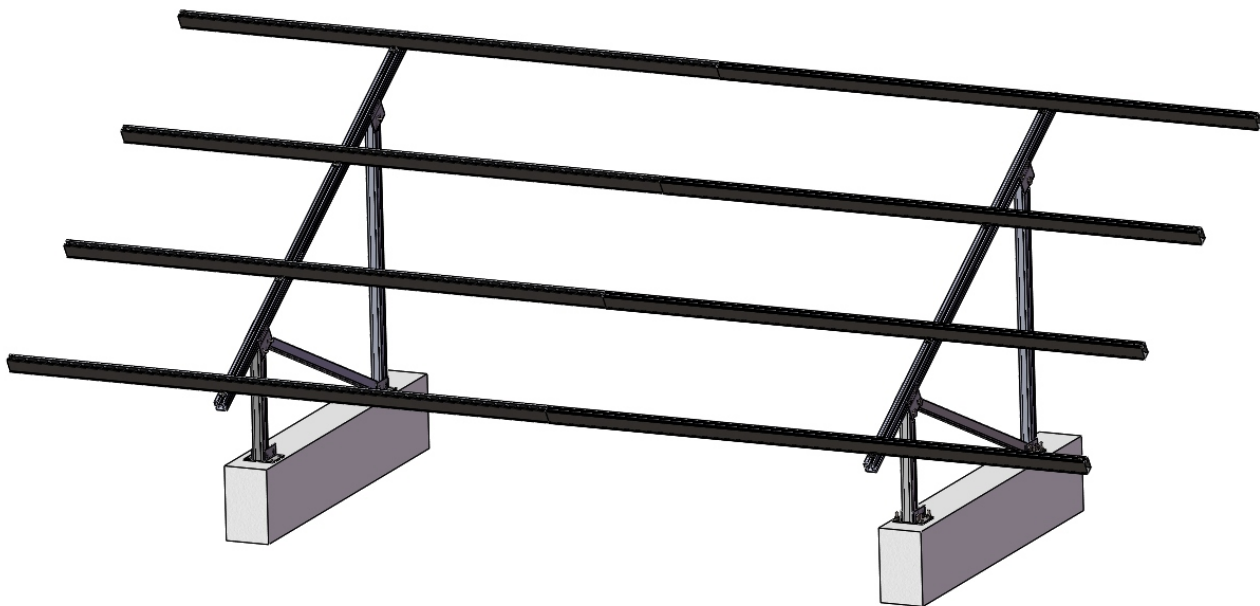


3.Place the HD Rails on the Pre-assembled Support, adjust the HD Rails to ensure that they are in line. Tighten both HD Rail Clamps to secure.

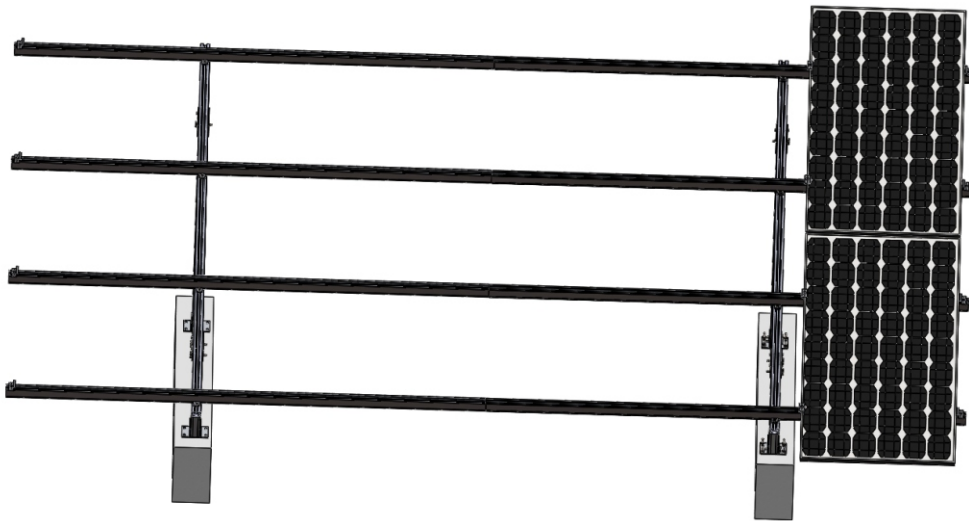


1 | 2
3 | 4

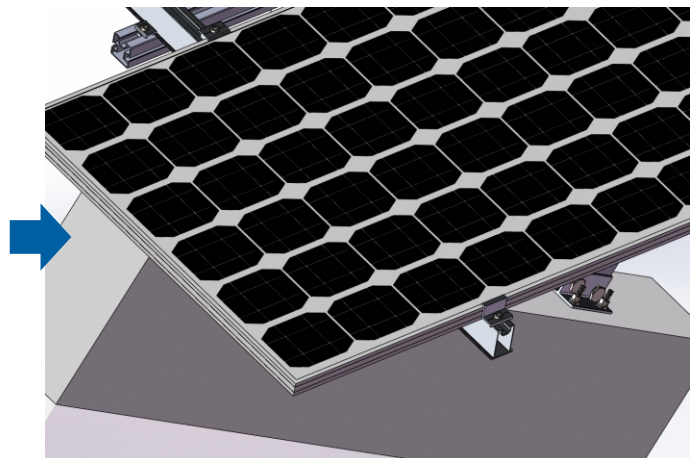
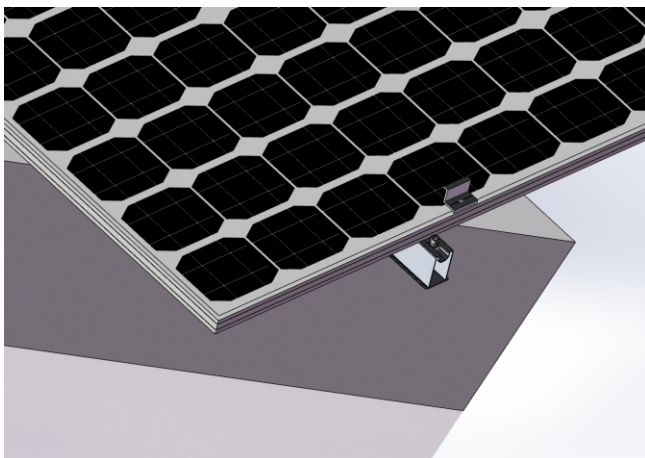




4. Place solar panels on the HD Rails.

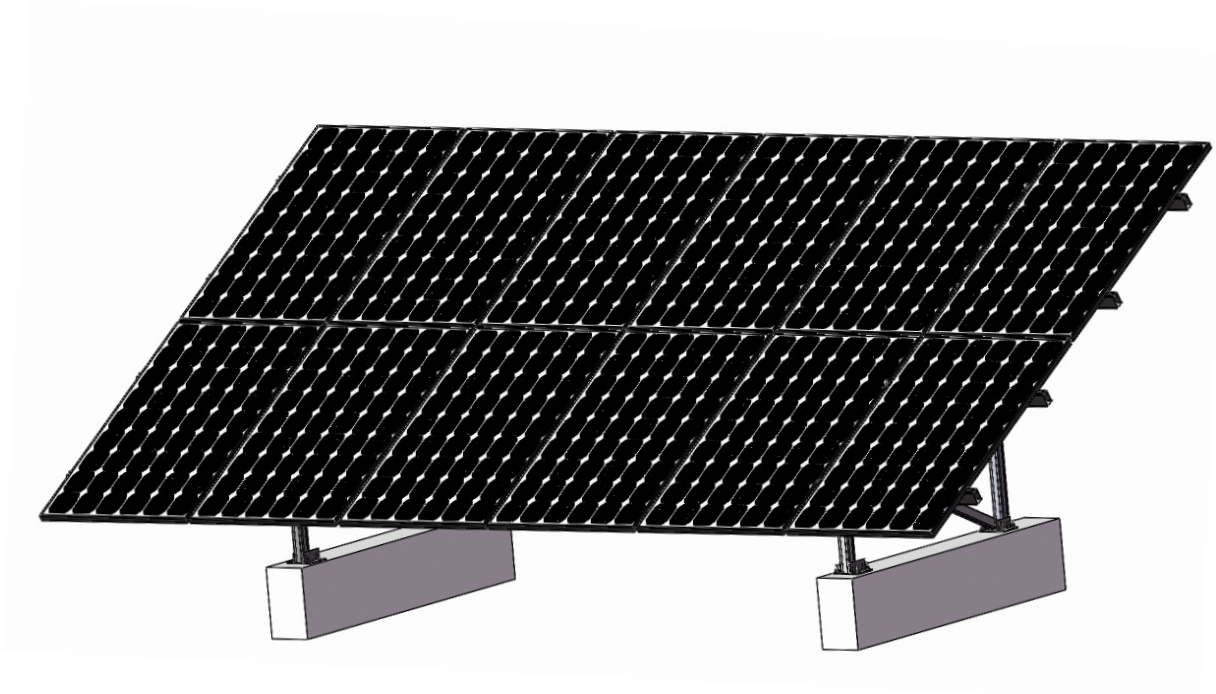


5. Use end clamps with, M8*25 Hexagon screws and fixing nuts to attach solar panels to the rails. Adjacent solar panels are attached by using mid clamps with M8 Hexagon screws. (The hexagon screw length is determined by the solar panel's thickness)





6. Repeat steps until installation is completed.



END OF DOCUMENT