AEROCOMPACT®

Checklist for the design of ground mount racking systems (USA)

○ **Request for quote** ○ **Order** **Date** _____

receipt stamp

Customer _____

Contact person _____

No., Street _____

City, State, ZIP code, Country _____

Phone, E-Mail _____

Project _____

No., Street _____

City, State, ZIP code _____

Country _____

Requested delivery date: _____

○ Pick up

○ Delivery to customer

○ Delivery to project address

Mounting System Type

○ **Aerocompact G15**
(mono-pitch, 15°)
22'' row spacing

○ **Aerocompact G20**
(mono-pitch, 20°)
29'' row spacing

○ **Aerocompact G+**
(double-pitch, 10°)
18.5'' row spacing

Further Design Options

○ only ballast (no ground screws)

○ only ground screws (no ballast)

○ optimized selection / mixture

PV Plant Size

○ **Full layout** (please provide plot size and shape) ○ Targeted Power: _____ kWp Preferred Array Size: _____ kWp

PV Module Specifications

Manufacturer: _____ Module Type: _____ Wattage: _____ Wp

Length x Width _____ in. Frame Height : _____ in. Weight: _____ lbs

Site Specifications

Location

geographical latitude: _____

geographical longitude: _____

altitude above sea level: _____ ft.

Exposure

○ **B** (urban / suburban and wooded areas)

○ **C** (open terrain, scattered obstructions)

○ **D** (flat and unobstructed shorelines)

Topography

inclination: _____ °

slope direction: _____

○ undulating terrain

Applicable Code:

○ ASCE 7-05 ○ ASCE 7-10 ○ NBCC (Canada)

○ Other (please indicate design wind load /design wind speed) _____ psf _____ mph

Surface and Soil

○ asphalt, concrete

○ wasteland, brownfield *

○ grassland, arable land *

○ landfill, earth deposit *

* suppression of plant growth recommended

○ all ballast put in ballast trays

○ fleece to suppress vegetation

○ hardpan or asphalt

○ soil class 1 (dense sand or gravel)

○ soil class 2 (medium sandy gravel)

○ soil class 3 (loose medium to fine sand)

○ soil class 4 (loose fine uncompacted sand)

Ballast Block Specifications

Length: _____ in. Width: _____ in. Height: _____ in. Weight: _____ lbs

Disclaimer: AEROCOMPACT is not responsible for incorrect system design based on deficient information provided by the customer, e.g. via this checklist, and refuses liability for problems, delays, costs, damages to things as well as to human health and life resulting directly or indirectly from this incorrect information. In particular, the local terrain and soil conditions should be thoroughly identified on site and completely communicated to **AEROCOMPACT** by the customer.

Table 1.5-1 Risk Category of Buildings and Other Structures for Flood, Wind, Snow, Earthquake, and Ice Loads	
Use or Occupancy of Buildings and Structures	Risk Category
Buildings and other structures that represent a low risk to human life in the event of failure	I
All buildings and other structures except those listed in Risk Categories	I, III, and IV II
Buildings and other structures, the failure of which could pose a substantial risk to human life.	III
Buildings and other structures, not included in Risk Category IV, with potential to cause a substantial economic impact and/or mass disruption of day-to-day civilian life in the event of failure.	
Buildings and other structures not included in Risk Category IV (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste, or explosives) containing toxic or explosive substances where their quantity exceeds a threshold quantity established by the authority having jurisdiction and is suffi cient to pose a threat to the public if released.	
Buildings and other structures designated as essential facilities.	IV
Buildings and other structures, the failure of which could pose a substantial hazard to the community.	
Buildings and other structures (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, or hazardous waste) containing suffi cient quantities of highly toxic substances where the quantity exceeds a threshold quantity established by the authority having jurisdiction to be dangerous to the public if released and is suffi cient to pose a threat to the public if released.[a]	
Buildings and other structures required to maintain the functionality of other Risk Category IV structures.	

[a] *Buildings and other structures containing toxic, highly toxic, or explosive substances shall be eligible for classifi cation to a lower Risk Category if it can be demonstrated to the satisfaction of the authority having jurisdiction by a hazard assessment as described in Section 1.5.2 that a release of the substances is commensurate with the risk associated with that Risk Category.*

6.5.6.2 Surface Roughness Categories. A ground surface roughness within each 45° sector shall be determined for a distance upwind of the site as defined in Section 6.5.6.3 from the categories defined in the following text, for the purpose of assigning an exposure category as defined in Section 6.5.6.3.

Surface Roughness B: Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger.

Surface Roughness C: Open terrain with scattered obstructions having heights generally less than 30 ft (9.1 m). This category includes flat open country, grasslands, and all water surfaces in hurricane prone regions.

Surface Roughness D: Flat, unobstructed areas and water surfaces outside hurricane prone regions. This category includes smooth mud flats, salt flats, and unbroken ice.