



SUNFIXINGS BALLAST CALCULATION IN TERRAIN
BY BS EN STANDARDS
BASIC DATA INFORMATION

R3 Bourton Industrial Park |
Bourton on the Water |
Cheltenham | Gloucestershire
| GL54 2HQ

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DESIGNED BY BS EN 1991-1-3:2003 AND 1991-1-4:2005

Project Information

Project name :	PS372.A Oak House
Company name :	Energy Store
Project location :	country
Post code :	TR16 6PL
Address :	The Oak House, Little White Alice, Redruth, Cornwall
Date:	24/10/2023

Building height Z :	2.18	m
Height ab. sea lvl. A :	199	m
Total height :	201.18	m
Sea distance dts :	11	km

Module Information

Module orientation :	Portrait		Module output power :	395	wp
Module length :	1722	mm	Number of modules :	28	pcs
Module width :	1134	mm	Total system size :	11.06	kwp
Module depth :	30	mm	Total system weight :	602	kg
Module mass :	21.50	kg	Module Mass per m ² :	11.01	kg/m ²
Mounting rail profile :	40x80	mm			
Max. span of m.r. profile :	2.80	m			

Structure Information

Structure mass :	526	kg	Total dead load :	1128	kg
Structure occupying area :	54.676944	m ²	Total dead load per m ² :	20.63	kg/m ²
Structure mass per m ² :	9.62	kg/m ²			

Total dead load g :	0.21	1.00	0.21	kNm ⁻²
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Basic climatic load data

Basic snow load s :	0.30	kN/m ²	Structure pitch :	30	°
Basic wind speed W _{b,map} :	25.00	m.s ⁻¹	qp(z) =	0.83	ce(z) = 1.5

please enter correct data for ce(z) in page 2 before printing results

Snow load on the structure - BS EN 1991-1-3						
	s	μ	sk	γ _f	sd	
snow area - at ground	0.30	1.00	0.30	1.35	0.41	kNm ⁻²
for roof structure	0.30	0.80	0.24	1.35	0.32	kNm ⁻²

Wind load on the structure - BS EN 1991-1-4						
	Basic wind speed W _{b,map} :	area	wk	γ _f	wd	
wind load by area	25.00	A	-1.24	1.35	-1.67	kNm ⁻²
wind load by area		B	-1.82	1.35	-2.45	kNm ⁻²
wind load by area		C	-2.23	1.35	-3.01	kNm ⁻²

negative values indicate upwind effects on the structure