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# STATISCHE BERECHNUNG

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Bauvorhaben: Fa. Niemetz Königsfeld  
Tabellenwerk für Auflagerreaktionen aus  
Photovoltaikuntergestellen

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## Erläuterungen zur Anwendung der Tabellen:

Mit Hilfe der Tabellen kann der Anwender abschätzen, inwieweit seine vorhandene Dachkonstruktion für die Zusatzbelastung aus einer aufgeständerten Photovoltaikanlage System „Solarpan“ geeignet ist. Alle nicht in den Tabellen erfassten Lasten sind vom Anwender selbst zu ermitteln und anzusetzen.

### Auflagerreaktionen (in KN/m)

- aus Lastfällen Eigengewicht Photovoltaikelement und Gestell Solarpan  
Schnee der Lastzonen 1, 1a, 2, 2a, 3  
Wind der Lastzonen 1, 2, 3, 4
- drückende Belastung für Auflager aus Winddruck überlagert mit Eigengewicht und Schnee in Tabellen 1-30 (für Pfettenbemessung)  
abhebende Belastung für Auflager aus Windsog überlagert mit Eigengewicht in Tabellen 31-33 (für Pfettenbemessung und Befestigungselemente des Trapezbleches)
- Auflagerreaktionen als charakteristische Werte.  
für Bemessung  $\gamma_F=1.35$  im Normalfall;  $\gamma_F$  im Sonderfall bei *kursiv* geschriebenen Werten explizit am rechten Tabellenrand angegeben

### Randbedingungen

- Ablastung der Untergestelle nur auf den Pfetten oder gesonderten Trägern, nicht auf der Dachhaut (Trapezblech) ohne Unterstützung
- Untergestell als 1-3-Feldsystem mit Kragarm mit gleich bleibenden Feldlängen von 1.05...1.50m, unterschiedlichen Kraglängen von 0.10...0.50m, unterschiedlichen Gestellneigungen von 10°...30°  
Zwischenwerte können interpoliert werden
- Befestigung des Trapezbleches am Auflagerpunkt mit den im Bauteilkatalog Solarpan festgelegten Verbindungsmitteln  
für Holzunterkonstruktion: Schraube FBS 6.5x75  
für Stahlunterkonstruktion: Schraube FBS 6.5x50
- Gestelle aus Aluminiumprofilen gemäß Bauteilkatalog Solarpan
- Befestigung der Gestelle auf Spezial-Trapezblech Solarpan
- Untergestellhaltepunkte in Auflagerlängsrichtung gemäß Sickenenteilung:  
Regelfall: Einflussbreite  $(97.6\text{cm}+61.0\text{cm})/2 = 79,3\text{cm}$   
Ausnahme: Einflussbreite =61.0cm  
bei Überschreitung der Tragfähigkeit des Aluprofils (fettgedruckte Tabellenwerte)

## Zusammenstellung der Belastungen:

<b>Eigengewicht:</b> aus den PV-modulen und der Untergestellkonstruktion			<b>0.15 KN/m<sup>2</sup></b>
<b>Schnee:</b>	<b>Lastzone 1:</b>	bis 400 m Höhe:	$0.8(0.19+0.91x) (540/760)^2 =$ <b>0.52 KN/m<sup>2</sup></b>
		bis 500 m Höhe:	$(640/760)^2 =$ <b>0.67 KN/m<sup>2</sup></b>
		bis 600 m Höhe:	$(740/760)^2 =$ <b>0.84 KN/m<sup>2</sup></b>
		bis 700 m Höhe:	$(840/760)^2 =$ <b>1.04 KN/m<sup>2</sup></b>
		bis 800 m Höhe:	$(940/760)^2 =$ <b>1.27 KN/m<sup>2</sup></b>
	<b>Lastzone 1a</b>	bis 400 m Höhe:	$0.19+0.91x (540/760)^2 =$ <b>0.65 KN/m<sup>2</sup></b>
		bis 500 m Höhe:	$(640/760)^2 =$ <b>0.84 KN/m<sup>2</sup></b>
		bis 600 m Höhe:	$(740/760)^2 =$ <b>1.05 KN/m<sup>2</sup></b>
		bis 700 m Höhe:	$(840/760)^2 =$ <b>1.30 KN/m<sup>2</sup></b>
		bis 800 m Höhe:	$(940/760)^2 =$ <b>1.58 KN/m<sup>2</sup></b>
	<b>Lastzone 2</b>	bis 286 m Höhe:	$0.8(0.25+1.91x) (426/760)^2 =$ <b>0.68 KN/m<sup>2</sup></b>
		bis 400 m Höhe:	$(540/760)^2 =$ <b>0.97 KN/m<sup>2</sup></b>
		bis 500 m Höhe:	$(640/760)^2 =$ <b>1.28 KN/m<sup>2</sup></b>
		bis 600 m Höhe:	$(740/760)^2 =$ <b>1.65 KN/m<sup>2</sup></b>
		bis 700 m Höhe:	$(840/760)^2 =$ <b>2.07 KN/m<sup>2</sup></b>
		bis 800 m Höhe:	$(940/760)^2 =$ <b>2.54 KN/m<sup>2</sup></b>
		bis 900 m Höhe:	$(1040/760)^2 =$ <b>3.06 KN/m<sup>2</sup></b>
	<b>Lastzone 2a</b>	bis 286 m Höhe:	$0.25+1,91 x (426/760)^2 =$ <b>0.85 KN/m<sup>2</sup></b>
		bis 400 m Höhe:	$(540/760)^2 =$ <b>1,21 KN/m<sup>2</sup></b>
		bis 500 m Höhe:	$(640/760)^2 =$ <b>1.60 KN/m<sup>2</sup></b>
		bis 600 m Höhe:	$(740/760)^2 =$ <b>2.06 KN/m<sup>2</sup></b>
		bis 700 m Höhe:	$(840/760)^2 =$ <b>2.58 KN/m<sup>2</sup></b>
		bis 800 m Höhe:	$(940/760)^2 =$ <b>3.17 KN/m<sup>2</sup></b>
		bis 900 m Höhe:	$(1040/760)^2 =$ <b>3.83 KN/m<sup>2</sup></b>
	<b>Lastzone 3</b>	bis 256 m Höhe:	$0.8(0.31+2.91x) (396/760)^2 =$ <b>0.88 KN/m<sup>2</sup></b>
		bis 400 m Höhe:	$(540/760)^2 =$ <b>1.42 KN/m<sup>2</sup></b>
		bis 500 m Höhe:	$(640/760)^2 =$ <b>1.90 KN/m<sup>2</sup></b>
		bis 600 m Höhe:	$(740/760)^2 =$ <b>2.46 KN/m<sup>2</sup></b>
		bis 700 m Höhe:	$(840/760)^2 =$ <b>3.09 KN/m<sup>2</sup></b>
		bis 800 m Höhe:	$(940/760)^2 =$ <b>3.81 KN/m<sup>2</sup></b>
		bis 900 m Höhe:	$(1040/760)^2 =$ <b>4.61 KN/m<sup>2</sup></b>
<b>Wind:</b>	<b>Lastzone 1</b>	Druck von oben:	$1.0 \times 0.50 =$ <b>0.50 KN/m<sup>2</sup></b>
		Druck und Sog von unten:	$1.8 \times 0.50 =$ - <b>0.90 KN/m<sup>2</sup></b>
	<b>Lastzone 2</b>	Druck von oben:	$1.0 \times 0.65 =$ <b>0.65 KN/m<sup>2</sup></b>
		Druck und Sog von unten:	$1.8 \times 0.65 =$ <b>1.17 KN/m<sup>2</sup></b>
	<b>Lastzone 3</b>	Druck von oben:	$1.0 \times 0.80 =$ <b>0.80 KN/m<sup>2</sup></b>
		Druck und Sog von unten:	$1.8 \times 0.80 =$ <b>1.44 KN/m<sup>2</sup></b>
	<b>Lastzone 4</b>	Druck von oben:	$1.0 \times 0.95 =$ <b>0.95 KN/m<sup>2</sup></b>
		Druck und Sog von unten:	$1.8 \times 0.95 =$ <b>1.71 KN/m<sup>2</sup></b>

## Grenzwerte der Tragfähigkeit und Gebrauchstauglichkeit:

### Tragfähigkeit der Alu-Profils:

zul  $\sigma = 9.5 \text{ KN/m}^2$   $W = 4.625 \text{ cm}^3$       zul  $M = 9.5 \times 4.625 = 0.44 \text{ KNm}$

- bei Rahmenabstand  $(97.6 + 61.0) / 2 = \mathbf{79.3 \text{ cm}}$       zul  $M = 0.44/0.793 = 0.55 \text{ KNm}$
- bei Rahmensbstand       $\mathbf{61.0 \text{ cm}}$       zul  $M = 0.44/0.61 = 0.72 \text{ KNm}$

### Durchbiegung des Alu-Profils:      zul $f = l/200$ und $a/150$

- bei Rahmenabstand  $\mathbf{79.3 \text{ cm}}$ 
  - bei  $l = 1.05 \text{ m}$       zul  $f = 105/200 \times 0.793 = 0.66 \text{ cm}$
  - bei  $l = 1.20 \text{ m}$       zul  $f = 120/200 \times 0.793 = 0.76 \text{ cm}$
  - bei  $l = 1.35 \text{ m}$       zul  $f = 135/200 \times 0.793 = 0.85 \text{ cm}$
  - bei  $l = 1.50 \text{ m}$       zul  $f = 150/200 \times 0.793 = 0.95 \text{ cm}$
  - bei  $a = 0.30 \text{ m}$       zul  $f = 30/150 \times 0.793 = 0.25 \text{ cm}$
  - bei  $a = 0.50 \text{ m}$       zul  $f = 50/150 \times 0.793 = 0.42 \text{ cm}$
- bei Rahmenabstand  $\mathbf{61.0 \text{ cm}}$ 
  - bei  $l = 1.05 \text{ m}$       zul  $f = 105/200 \times 0.61 = 0.86 \text{ cm}$
  - bei  $l = 1.20 \text{ m}$       zul  $f = 120/200 \times 0.61 = 0.98 \text{ cm}$
  - bei  $l = 1.35 \text{ m}$       zul  $f = 135/200 \times 0.61 = 1.11 \text{ cm}$
  - bei  $l = 1.50 \text{ m}$       zul  $f = 150/200 \times 0.61 = 1.23 \text{ cm}$
  - bei  $a = 0.30 \text{ m}$       zul  $f = 30/150 \times 0.61 = 0.33 \text{ cm}$
  - bei  $a = 0.50 \text{ m}$       zul  $f = 50/150 \times 0.61 = 0.55 \text{ cm}$

Tragfähigkeit Schraube 1xM10 8.8:      Abscheren      zul  $A = 0.58 \times 0.60 \times 80/1.35 \times 1.25 = 16.50 \text{ KN}$   
Lochleibung      zul  $A = 13.5 \times 0.8 \times 0.4 = 5.40 \text{ KN}$   
(alles charakteristische Werte)

### Tragfähigkeit Trapezblechsteg:      $A \times 1.35 / 2 \times 0.075 \times 10 = 24/1.1$

- bei Rahmenabstand  $\mathbf{79.3 \text{ cm}}$       zul  $A = 24 \times 2 \times 0.075 \times 10 / 1.1 \times 1.35 \times 0.793 = 30.6 \text{ KN}$
- bei Rahmenabstand  $\mathbf{61.0 \text{ cm}}$       zul  $A = 24 \times 2 \times 0.075 \times 10 / 1.1 \times 1.35 \times 0.61 = 39.7 \text{ KN}$

### Tragfähigkeit der Trapezblechschrauben bei Zug aus Windsog + Eigengewicht

Bei Holz: Randabstände nach DIN 1052 einhalten!

#### bei Rahmenabstand $\mathbf{79.3 \text{ cm}}$

- bei 1 Schraube je Wellental:      1 Schraube FBS 6.5x50      Stahl: zul  $A_s = 2 \times 2.10/0.793 = 10.77 \text{ KN}$   
5.30 KN      1 Schraube FBS 6.5x75      Holz: zul  $A_s = 2 \times 4.27/0.793 = 10.77 \text{ KN}$
- bei 2 Schrauben je Wellental      doppelte Werte

#### bei Rahmenabstand $\mathbf{61.0 \text{ cm}}$

- bei 1 Schraube je Wellental:      1 Schraube FBS 6.5x50      Stahl: zul  $A_s = 2 \times 2.10/0.61 = 14.00 \text{ KN}$   
6.89 KN      1 Schraube FBS 6.5x75      Holz: zul  $A_s = 2 \times 4.27/0.61 = 14.00 \text{ KN}$
- bei 2 Schrauben je Wellental      doppelte Werte

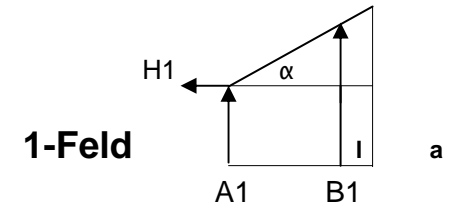
**Tabellenübersicht:**

Tabellennr.	Schneelastzone	Windlastzone	Feldanzahl	Belastung
1	1	1	1	Druck von oben aus Eigengewicht, Schnee und Wind
2			2	
3			3	
4	1a	1	1	
5			2	
6			3	
7	2	1	1	
8			2	
9			3	
10	2a	1	1	
11			2	
12			3	
13	3	1	1	
14			2	
15			3	
16	1	2	1	
17			2	
18			3	
19	1a	2	1	
20			2	
21			3	
22	2	2	1	
23			2	
24			3	
25	3	2	1	
26			2	
27			3	
28	1	3	1	
	2	3		
	3	3		
	1	4		
	2	4		
29	1	3	2	
	2	3		
	3	3		
	1	4		
	2	4		
30	1	3	3	
	2	3		
	3	3		
	1	4		
	2	4		

31	-	1/2/3/4	1	Abheben aus Windsog minus Eigengewicht
32	-	1/2/3/4	2	
33	-	1/2/3/4	3	

## TABELLE 1

BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m  
Schneelastzone 1 / Windlastzone 1 (Winddruck von oben)



Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50					
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
<b>&lt;400</b>	A1 =	0.60	0.52	0.55	0.43	0.46	0.29	0.69	0.59	0.65	0.52	0.56	0.39	0.78	0.67	0.74	0.60	0.66	0.48	0.86	0.75	0.83	0.68	0.76	0.57
	B1 =	0.75	0.86	1.03	1.18	1.36	1.56	0.84	0.96	1.11	1.28	1.43	1.64	0.93	1.06	1.20	1.37	1.51	1.72	1.01	1.16	1.28	1.47	1.58	1.81
<b>500</b>	A1 =	0.68	0.59	0.62	0.50	0.52	0.35	0.78	0.68	0.73	0.60	0.64	0.46	0.87	0.77	0.83	0.69	0.75	0.57	0.97	0.86	0.93	0.79	0.86	0.67
	B1 =	0.84	0.95	1.16	1.31	1.53	1.73	0.94	1.06	1.25	1.41	1.61	1.82	1.04	1.17	1.35	1.52	1.69	1.91	1.14	1.29	1.44	1.63	1.78	2.01
<b>600</b>	A1 =	0.77	0.68	0.71	0.59	0.59	0.42	0.88	0.79	0.83	0.70	0.72	0.55	0.99	0.89	0.94	0.80	0.85	0.67	1.10	0.99	1.06	0.91	0.98	0.79
	B1 =	0.95	1.06	1.31	1.46	1.73	1.92	1.06	1.19	1.42	1.58	1.82	2.03	1.18	1.31	1.52	1.70	1.91	2.13	1.29	1.44	1.63	1.82	2.01	2.24
<b>700</b>	A1 =	0.87	0.79	0.80	0.68	0.67	0.51	1.00	0.90	0.94	0.81	0.82	0.65	1.13	1.02	1.07	0.93	0.97	0.79	1.25	1.14	1.20	1.05	1.11	0.92
	B1 =	1.08	1.19	1.48	1.63	1.96	2.15	1.20	1.33	1.60	1.76	2.06	2.27	1.33	1.47	1.72	1.90	2.17	2.38	1.46	1.61	1.85	2.03	2.28	2.51
<b>800</b>	A1 =	0.99	0.90	0.91	0.79	0.76	0.60	1.13	1.04	1.06	0.94	0.93	0.76	1.28	1.17	1.22	1.08	1.10	0.92	1.42	<b>1.31</b>	1.36	1.22	1.26	1.07
	B1 =	1.22	1.33	1.68	1.83	2.21	2.41	1.36	1.48	1.81	1.97	2.33	2.54	1.51	1.64	1.95	2.12	2.45	2.67	1.65	<b>1.80</b>	2.09	2.27	2.58	2.81
	H1 =	0.10	0.33	0.12	0.39	0.14	0.45	0.11	0.38	0.13	0.43	0.15	0.49	0.13	0.42	0.15	0.48	0.16	0.53	0.14	0.46	0.16	0.52	0.18	0.58

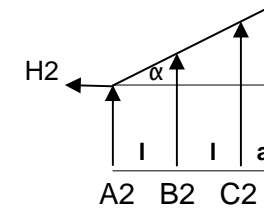
alle Werte sind charakteristische Werte. Für Bemessung: **YF = 1.35**. **Fette Werte** nur für Rahmenabstand **0.61 m**

## TABELLE 2

BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m

Schneelastzone 1 / Windlastzone 1 (Winddruck von oben)

2-Feld



Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
< 400	A2 =	0.44	0.27	0.44	0.28	0.46	0.29	0.50	0.31	0.50	0.32	0.52	0.33	0.56	0.35	0.57	0.36	0.58	0.37	0.62	0.39	0.63	0.40	0.64	0.40	$\gamma F = 1.466$
	B2 =	1.55	1.77	1.48	1.70	1.35	1.54	1.77	2.03	1.71	1.96	1.60	1.83	2.00	2.29	1.94	2.23	1.84	2.11	2.22	2.54	2.17	2.49	2.08	2.38	
	C2 =	0.59	0.68	0.89	1.02	1.24	1.42	0.66	0.76	0.95	1.08	1.28	1.47	0.73	0.83	1.01	1.15	1.33	1.53	0.79	0.91	1.07	1.22	1.39	1.59	
500	A2 =	0.49	0.39	0.50	0.34	0.53	0.36	0.56	0.38	0.57	0.39	0.59	0.40	0.64	0.43	0.64	0.43	0.66	0.45	0.70	0.48	0.71	0.48	0.73	0.49	$\gamma F = 1.473$
	B2 =	1.74	1.97	1.67	1.88	1.51	1.71	1.99	2.25	1.93	2.18	1.79	2.03	2.25	2.54	2.19	2.47	2.07	2.33	2.50	2.82	2.44	2.76	2.34	2.64	
	C2 =	0.67	0.75	1.00	1.13	1.39	1.57	0.74	0.84	1.07	1.20	1.44	1.63	0.82	0.92	1.13	1.28	1.50	1.69	0.89	1.01	1.20	1.36	1.56	1.76	
600	A2 =	0.56	0.40	0.57	0.41	0.60	0.43	0.64	0.45	0.65	0.46	0.67	0.47	0.72	0.49	0.73	0.49	0.75	0.51	0.80	0.56	0.81	0.58	0.83	0.59	$\gamma F = 1.477$
	B2 =	1.97	2.19	1.88	2.10	1.71	1.91	2.25	2.51	2.18	2.43	2.03	2.26	2.54	2.83	2.47	2.75	2.34	2.60	2.82	3.14	2.76	3.08	2.64	2.94	
	C2 =	0.76	0.84	1.13	1.26	1.58	1.75	0.84	0.94	1.20	1.34	1.63	1.82	0.92	1.03	1.28	1.43	1.69	1.89	1.01	1.12	1.36	1.51	1.76	1.96	
700	A2 =	0.64	0.48	0.66	0.49	0.68	0.51	0.73	0.53	0.74	0.54	0.77	0.57	0.82	0.61	0.83	0.63	0.86	0.64	0.91	0.65	0.92	0.67	0.94	0.69	$\gamma F = 1.481$
	B2 =	2.23	2.45	2.13	2.35	1.94	2.13	2.55	2.81	2.47	2.71	2.30	2.53	2.87	3.16	2.80	3.08	2.65	2.91	3.20	3.52	3.13	3.44	2.99	3.29	
	C2 =	0.86	0.94	1.28	1.41	1.78	1.96	0.95	1.05	1.36	1.50	1.85	2.03	1.05	1.15	1.45	1.60	1.92	2.11	1.14	1.26	1.54	1.69	1.99	2.00	
800	A2 =	0.73	0.57	0.75	0.58	0.78	0.60	0.83	0.63	0.85	0.66	0.88	0.67	0.84	0.73	0.95	0.75	0.98	0.77	1.04	<b>0.79</b>	1.05	0.80	1.07	0.81	$\gamma F = 1.484$
	B2 =	2.52	2.75	2.41	2.63	2.19	2.39	2.89	3.14	2.79	3.04	2.60	2.83	3.25	3.54	3.17	3.45	2.99	3.26	3.62	<b>3.94</b>	3.54	3.85	3.38	3.68	
	C2 =	0.97	1.05	1.45	1.58	2.02	2.20	1.08	1.17	1.54	1.68	2.09	2.28	1.18	1.29	1.64	1.79	2.17	2.36	1.29	<b>1.41</b>	1.74	1.90	2.26	2.46	
	H2 =	0.19	0.64	0.21	0.69	0.23	0.75	0.22	0.72	0.24	0.78	0.26	0.84	0.25	0.81	0.26	0.87	0.28	0.92	0.27	0.90	0.29	0.95	0.31	1.01	

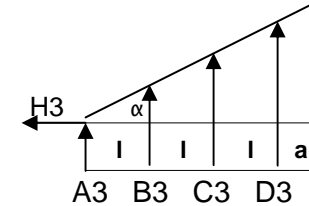
alle Werte sind charakteristische Werte. Für die Bemessung der nicht *kursiven* Werte:  $\gamma F = 1.35$ , **Fette Werte** nur für Rahmenabstand **0.61 m**



**TABELLE 3**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 1 / Windlastzone 1 (Winddruck von oben)**

**3-Feld**

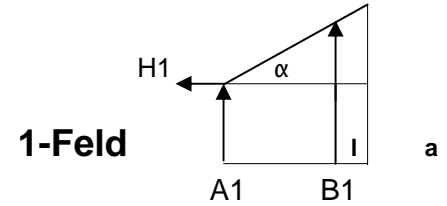


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha =$	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
<b>&lt; 400</b>	<b>A3 =</b>	0.45	0.29	0.44	0.29	0.43	0.28	0.51	0.33	0.51	0.33	0.50	0.33	0.58	0.38	0.57	0.37	0.56	0.37	0.64	0.42	0.64	0.42	0.63	0.40	<i><math>\gamma F = 1.466</math></i>
	<b>B3 =</b>	1.37	1.57	1.39	1.59	1.43	1.63	1.57	1.80	1.59	1.82	1.62	1.85	1.77	2.02	1.78	2.04	1.81	2.07	1.96	2.25	1.97	2.26	2.00	2.29	
	<b>C3 =</b>	1.36	1.56	1.29	1.48	1.15	1.31	1.56	1.79	1.50	1.71	1.37	1.57	1.76	2.01	1.70	1.95	1.59	1.82	1.95	2.24	1.90	2.18	1.80	2.06	
	<b>D3 =</b>	0.63	0.72	0.93	1.05	1.27	1.46	0.70	0.80	0.98	1.13	1.32	1.51	0.77	0.88	1.05	1.20	1.38	1.57	0.84	0.90	1.11	1.28	1.43	1.64	
<b>500</b>	<b>A3 =</b>	0.51	0.34	0.51	0.35	0.49	0.35	0.58	0.40	0.58	0.40	0.57	0.40	0.66	0.46	0.65	0.45	0.64	0.45	0.73	0.51	0.72	0.50	0.72	0.50	<i><math>\gamma F = 1.473</math></i>
	<b>B3 =</b>	1.55	1.74	1.56	1.77	1.61	1.81	1.77	1.99	1.78	2.01	1.82	2.05	1.99	2.24	2.00	2.26	2.03	2.29	2.21	2.49	2.22	2.51	2.25	2.54	
	<b>C3 =</b>	1.53	1.73	1.45	1.64	1.29	1.46	1.75	1.98	1.68	1.90	1.54	1.74	1.98	2.23	1.91	2.16	1.79	2.02	2.20	2.48	2.14	2.42	2.03	2.29	
	<b>D3 =</b>	0.70	0.79	1.03	1.17	1.43	1.61	0.78	0.88	1.11	1.25	1.49	1.68	0.86	0.97	1.18	1.33	1.55	1.75	0.94	1.06	1.25	1.41	1.61	1.82	
<b>600</b>	<b>A3 =</b>	0.59	0.43	0.58	0.43	0.57	0.42	0.67	0.46	0.66	0.46	0.65	0.47	0.75	0.50	0.74	0.50	0.74	0.53	0.83	0.61	0.83	0.60	0.82	0.60	<i><math>\gamma F = 1.477</math></i>
	<b>B3 =</b>	1.75	1.95	1.77	1.97	1.81	2.02	2.00	2.22	2.02	2.24	2.06	2.29	2.24	2.50	2.26	2.52	2.30	2.56	2.49	2.78	2.51	2.80	2.54	2.83	
	<b>C3 =</b>	1.73	1.93	1.64	1.83	1.46	1.62	1.98	2.21	1.90	2.12	1.74	1.94	2.23	2.49	2.16	2.41	2.02	2.25	2.48	2.77	2.42	2.69	2.29	2.55	
	<b>D3 =</b>	0.80	0.89	1.17	1.30	1.62	1.80	0.88	0.98	1.25	1.39	1.68	1.87	0.97	1.09	1.33	1.48	1.75	1.95	1.06	1.19	1.42	1.58	1.82	2.03	
<b>700</b>	<b>A3 =</b>	0.67	0.51	0.66	0.51	0.65	0.52	0.76	0.50	0.76	0.55	0.75	0.58	0.86	0.66	0.85	0.69	0.84	0.65	0.95	0.68	0.95	0.70	0.94	0.71	<i><math>\gamma F = 1.481</math></i>
	<b>B3 =</b>	1.98	2.18	2.00	2.20	2.05	2.26	2.26	2.49	2.28	2.51	2.33	2.56	2.54	2.79	2.56	2.82	2.60	2.86	2.82	3.11	2.84	3.13	2.88	3.17	
	<b>C3 =</b>	1.96	2.16	1.86	2.04	1.65	1.82	2.24	2.47	2.15	2.37	1.97	2.17	2.53	2.78	2.45	2.69	2.29	2.52	2.81	3.09	2.74	3.01	2.59	2.85	
	<b>D3 =</b>	0.90	0.99	1.32	1.46	1.83	2.01	1.00	1.10	1.41	1.56	1.90	2.09	1.10	1.21	1.51	1.66	1.98	2.18	1.20	1.33	1.60	1.76	2.06	2.27	
<b>800</b>	<b>A3 =</b>	0.76	0.61	0.75	0.63	0.74	0.65	0.87	0.67	0.86	0.69	0.85	0.71	0.98	0.78	0.97	0.79	0.96	0.81	1.09	0.82	1.08	0.84	1.07	0.86	<i><math>\gamma F = 1.484</math></i>
	<b>B3 =</b>	2.24	2.44	2.26	2.47	2.32	2.53	2.56	2.78	2.58	2.81	2.63	2.86	2.87	3.13	2.90	3.15	2.94	3.20	3.19	3.48	3.21	3.49	3.25	3.54	
	<b>C3 =</b>	2.22	2.42	2.10	2.29	1.87	2.03	2.54	2.77	2.44	2.65	2.23	2.43	2.86	3.12	2.77	3.02	2.59	2.82	3.18	3.46	3.10	3.37	2.93	3.19	
	<b>D3 =</b>	1.02	1.11	1.50	1.63	2.07	2.25	1.13	1.23	1.60	1.74	2.15	2.34	1.25	1.36	1.71	1.86	2.24	2.44	1.36	1.48	1.81	1.98	2.33	2.54	
	<b>H3 =</b>	0.29	0.94	0.30	1.00	0.32	1.05	0.33	1.07	0.34	1.13	0.36	1.18	0.37	1.20	0.38	1.26	0.40	1.31	0.41	1.33	0.42	1.39	0.44	1.44	

alle Werte sind charakteristische Werte. Für die Bemessung der nicht *kursiven* Werte  $\gamma F = 1.35$

**TABELLE 4**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 1a / Windlastzone 1 (Winddruck von oben)**



Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50					
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
	Neigung $\alpha =$	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
<b>&lt;400</b>	<b>A1 =</b>	0.67	0.58	0.61	0.49	0.51	0.35	0.77	0.67	0.72	0.59	0.63	0.46	0.86	0.76	0.82	0.68	0.74	0.56	0.96	0.85	0.92	0.77	0.85	0.66
	<b>B1 =</b>	0.83	0.94	1.14	1.29	1.51	1.71	0.93	1.05	1.24	1.40	1.59	1.79	1.03	1.16	1.33	1.50	1.67	1.89	1.13	1.27	1.42	1.61	1.76	1.99
<b>500</b>	<b>A1 =</b>	0.76	0.68	0.70	0.58	0.59	0.42	0.88	0.78	0.82	0.69	0.72	0.55	0.99	0.88	0.94	0.80	0.85	0.67	1.10	0.98	1.05	0.91	0.97	0.78
	<b>B1 =</b>	0.95	1.06	1.30	1.45	1.72	1.92	1.06	1.18	1.41	1.47	1.81	2.02	1.17	1.30	1.52	1.69	1.91	2.12	1.28	1.43	1.62	1.81	2.00	2.23
<b>600</b>	<b>A1 =</b>	0.88	0.79	0.81	0.69	0.68	0.51	1.01	0.91	0.95	0.82	0.83	0.66	1.13	1.03	1.08	0.94	0.97	0.79	1.26	1.15	1.21	1.06	1.12	0.93
	<b>B1 =</b>	1.08	1.09	1.49	1.64	1.97	2.17	1.21	1.33	1.61	1.78	2.07	2.28	1.34	1.47	1.74	1.91	2.18	2.40	1.47	1.62	1.86	2.04	2.30	2.52
<b>700</b>	<b>A1 =</b>	1.01	0.92	0.93	0.81	0.78	0.61	1.15	1.06	1.09	0.96	0.95	0.78	1.30	1.20	1.24	1.10	1.12	0.94	1.45	<b>1.33</b>	1.39	1.24	1.28	1.09
	<b>B1 =</b>	1.24	1.35	1.71	1.86	2.25	2.45	1.39	1.51	1.85	2.01	2.37	2.58	1.53	1.67	1.99	2.16	2.50	2.72	1.68	<b>1.83</b>	2.13	2.31	2.63	2.86
<b>800</b>	<b>A1 =</b>	1.15	1.07	1.06	0.94	0.89	0.73	1.32	1.23	1.24	1.11	1.09	0.92	1.49	1.38	1.42	1.28	1.28	1.10	<b>1.66</b>	<b>1.54</b>	<b>1.59</b>	<b>1.44</b>	1.47	1.28
	<b>B1 =</b>	1.42	1.53	1.95	2.10	2.57	2.77	1.58	1.71	2.11	2.27	2.71	2.92	1.75	1.89	2.27	2.44	2.85	3.07	<b>1.92</b>	<b>2.07</b>	<b>2.43</b>	<b>2.62</b>	3.00	3.23
	<b>H1 =</b>	0.10	0.33	0.12	0.39	0.14	0.45	0.11	0.38	0.13	0.43	0.15	0.49	0.13	0.42	0.15	0.48	0.16	0.53	0.14	0.46	0.16	0.52	0.18	0.58

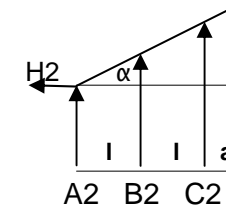
alle werte sind charakteristische werte. Für die Bemessung:  $\gamma_F = 1.35$ . Fette Werte nur für Rahmenabstand 0.61 m

**TABELLE 5**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**

**Schneelastzone 1a / Windlastzone 1 (Winddruck von oben)**

**2-Feld**



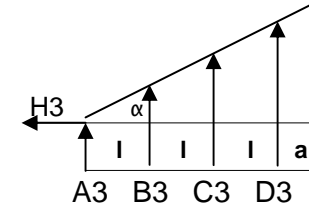
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha =$	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<400	A2 =	0.49	0.33	0.50	0.34	0.52	0.35	0.50	0.37	0.56	0.38	0.58	0.39	0.63	0.40	0.63	0.42	0.65	0.44	0.69	0.45	0.70	0.47	0.72	0.48	$\gamma F = 1,472$
	B2 =	1.72	1.94	1.64	1.85	1.49	1.69	1.97	2.22	1.90	2.15	1.77	2.00	2.22	2.50	2.16	2.44	2.04	2.31	2.47	2.79	2.41	2.73	2.31	2.61	
	C2 =	0.66	0.75	0.99	1.11	1.37	1.55	0.73	0.83	1.05	1.19	1.42	1.61	0.81	0.91	1.12	1.26	1.48	1.67	0.88	0.99	1.19	1.34	1.54	1.74	
500	A2 =	0.56	0.40	0.57	0.41	0.60	0.43	0.64	0.46	0.65	0.48	0.67	0.50	0.72	0.51	0.73	0.52	0.75	0.54	0.80	0.55	0.81	0.57	0.82	0.58	$\gamma F = 1.477$
	B2 =	1.96	2.18	1.87	2.09	1.70	1.90	2.24	2.50	2.17	2.42	2.02	2.25	2.53	2.82	2.46	2.74	2.33	2.59	2.81	3.13	2.75	3.06	2.63	2.93	
	C2 =	0.75	0.84	1.12	1.25	1.57	1.75	0.84	0.93	1.20	1.34	1.62	1.81	0.92	1.02	1.28	1.42	1.69	1.88	1.00	1.12	1.35	1.51	1.75	1.96	
600	A2 =	0.65	0.48	0.66	0.49	0.69	0.51	0.74	0.53	0.75	0.55	0.78	0.58	0.83	0.62	0.84	0.63	0.86	0.65	0.92	0.67	0.93	0.68	0.95	0.70	$\gamma F = 1.481$
	B2 =	2.24	2.47	2.15	2.30	1.95	2.15	2.57	2.83	2.48	2.73	2.31	2.54	2.89	3.18	2.82	3.10	2.66	2.93	3.22	3.54	3.15	3.46	3.01	3.31	
	C2 =	0.86	0.95	1.29	1.42	1.80	1.97	0.96	1.05	1.37	1.51	1.86	2.05	1.05	1.16	1.46	1.61	1.93	2.12	1.15	1.26	1.55	1.70	2.01	2.21	
700	A2 =	0.75	0.58	0.77	0.60	0.79	0.61	0.85	0.63	0.86	0.64	0.89	0.66	0.96	0.67	0.97	0.72	0.99	0.78	1.06	<b>0.83</b>	1.07	<b>0.85</b>	1.10	0.87	$\gamma F = 1.485$
	B2 =	2.57	2.79	2.46	2.67	2.23	2.43	2.94	3.20	2.84	3.09	2.65	2.88	3.31	3.60	3.22	3.51	3.05	3.32	3.68	<b>4.00</b>	3.60	<b>3.92</b>	3.45	3.75	
	C2 =	0.99	1.07	1.47	1.60	2.05	2.23	1.10	1.19	1.57	1.71	2.13	2.31	1.20	1.31	1.67	1.82	2.21	2.40	1.31	<b>1.43</b>	1.77	<b>1.93</b>	2.30	2.50	
800	A2 =	0.86	0.69	0.87	0.71	0.91	0.73	0.98	0.75	0.99	0.78	1.03	0.80	1.10	0.82	1.11	0.83	1.14	0.85	<b>1.22</b>	<b>0.87</b>	<b>1.23</b>	<b>1.00</b>	1.16	<b>1.04</b>	$\gamma F = 1.487$
	B2 =	2.93	3.16	2.81	3.02	2.55	2.75	3.36	3.62	3.25	3.49	3.02	3.25	3.78	4.07	3.68	3.96	3.48	3.75	<b>4.21</b>	<b>4.53</b>	<b>4.12</b>	<b>4.43</b>	3.94	<b>4.24</b>	
	C2 =	1.13	1.21	1.68	1.81	2.35	2.53	1.25	1.35	1.79	1.93	2.43	2.62	1.38	1.48	1.91	2.06	2.53	2.72	<b>1.50</b>	<b>1.62</b>	<b>2.03</b>	<b>2.18</b>	2.63	<b>2.83</b>	
	H2 =	0.19	0.64	0.21	0.69	0.23	0.75	0.22	0.72	0.24	0.78	0.26	0.84	0.25	0.81	0.26	0.87	0.28	0.92	0.27	0.90	0.29	0.95	0.31	1.01	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* **werten**  $\gamma F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 6**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 1a / Windlastzone 1** (Winddruck von oben)

**3-Feld**

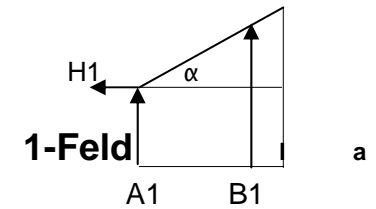


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<b>&lt;400</b>	<b>A3 =</b>	0.50	0.35	0.50	0.36	0.49	0.38	0.58	0.40	0.57	0.40	0.56	0.40	0.65	0.41	0.64	0.42	0.63	0.44	0.72	0.45	0.71	0.47	0.71	0.49	$\gamma_F = 1.472$
	<b>B3 =</b>	1.52	1.72	1.54	1.75	1.58	1.79	1.74	1.97	1.76	1.99	1.79	2.03	1.96	2.21	1.97	2.23	2.01	2.27	2.18	2.46	2.19	2.48	2.22	2.51	
	<b>C3 =</b>	1.51	1.71	1.43	1.62	1.27	1.44	1.73	1.96	1.66	1.88	1.52	1.72	1.95	2.20	1.89	2.13	1.76	1.99	2.17	2.45	2.11	2.39	2.00	2.26	
	<b>D3 =</b>	0.69	0.78	1.02	1.15	1.41	1.60	0.77	0.87	1.09	1.23	1.47	1.66	0.85	0.96	1.16	1.31	1.53	1.72	0.93	1.05	1.24	1.40	1.59	1.80	
<b>500</b>	<b>A3 =</b>	0.58	0.42	0.57	0.44	0.56	0.45	0.66	0.48	0.66	0.49	0.65	0.52	0.75	0.55	0.74	0.57	0.73	0.58	0.83	0.59	0.82	0.60	0.82	0.62	$\gamma_F = 1.477$
	<b>B3 =</b>	1.74	1.94	1.76	1.96	1.81	2.01	1.99	2.21	2.01	2.24	2.05	2.28	2.23	2.49	2.25	2.51	2.29	2.55	2.48	2.77	2.50	2.78	2.53	2.82	
	<b>C3 =</b>	1.72	1.92	1.63	1.82	1.45	1.62	1.97	2.20	1.89	2.11	1.73	1.93	2.22	2.48	2.15	2.40	2.01	2.24	2.47	2.75	2.41	2.68	2.28	2.54	
	<b>D3 =</b>	0.79	0.88	1.06	1.30	1.61	1.79	0.88	0.98	1.24	1.39	1.67	1.86	0.97	1.08	1.33	1.48	1.74	1.94	1.06	1.18	1.41	1.57	1.81	2.02	
<b>600</b>	<b>A3 =</b>	0.67	0.52	0.67	0.53	0.65	0.55	0.77	0.56	0.76	0.57	0.75	0.60	0.87	0.64	0.86	0.65	0.85	0.66	0.96	0.67	0.96	0.69	0.95	0.70	$\gamma_F = 1.481$
	<b>B3 =</b>	1.99	2.19	2.02	2.22	2.07	2.27	2.27	2.50	2.30	2.53	2.34	2.58	2.56	2.81	2.58	2.84	2.62	2.88	2.84	3.13	2.86	3.15	2.90	3.19	
	<b>C3 =</b>	1.97	2.17	1.87	2.06	1.66	1.83	2.26	2.49	2.17	2.39	1.99	2.19	2.55	2.80	2.46	2.71	2.30	2.53	2.83	3.11	2.76	3.03	2.61	2.87	
	<b>D3 =</b>	0.91	1.00	1.33	1.47	1.84	2.03	1.01	1.11	1.42	1.57	1.91	2.10	1.11	1.22	1.52	1.67	1.99	2.19	1.21	1.33	1.61	1.78	2.08	2.28	
<b>700</b>	<b>A3 =</b>	0.78	0.62	0.77	0.63	0.76	0.65	0.89	0.66	0.88	0.68	0.87	0.70	1.00	0.72	0.99	0.77	0.98	0.81	1.11	0.88	1.10	0.90	1.09	0.92	$\gamma_F = 1.485$
	<b>B3 =</b>	2.28	2.48	2.31	2.51	2.37	2.57	2.60	2.83	2.63	2.86	2.68	2.92	2.93	3.18	2.95	3.21	3.00	3.26	3.25	3.54	3.27	3.56	3.32	3.60	
	<b>C3 =</b>	2.26	2.46	2.14	2.33	1.90	2.07	2.59	2.81	2.48	2.70	2.27	2.47	2.91	3.17	2.82	3.07	2.63	2.86	3.24	3.52	3.16	3.43	2.99	3.25	
	<b>D3 =</b>	1.04	1.13	1.53	1.66	2.11	2.29	1.15	1.25	1.63	1.77	2.19	2.38	1.27	1.38	1.74	1.89	2.28	2.48	1.39	1.51	1.85	2.01	2.38	2.58	
<b>800</b>	<b>A3 =</b>	0.89	0.74	0.89	0.76	0.87	0.77	1.02	0.79	1.01	0.81	1.00	0.84	1.15	0.86	1.14	0.87	1.13	0.88	1.28	0.94	1.27	1.05	1.26	1.09	$\gamma_F = 1.487$
	<b>B3 =</b>	2.60	2.80	2.64	2.84	2.70	2.91	2.97	3.20	3.00	3.23	3.06	3.30	3.24	3.60	3.37	3.63	3.42	3.69	3.72	4.00	3.74	4.02	3.79	4.08	
	<b>C3 =</b>	2.58	2.78	2.45	2.63	2.17	2.34	2.95	3.18	2.84	3.05	2.60	2.80	3.33	3.58	3.22	3.47	3.01	3.24	3.70	3.98	3.60	3.88	3.41	3.67	
	<b>D3 =</b>	1.18	1.27	1.74	1.88	2.41	2.59	1.32	1.42	1.86	2.00	2.50	2.69	1.45	1.56	1.99	2.14	2.60	2.80	1.59	1.71	2.11	2.27	2.71	2.92	
	<b>H3 =</b>	0.29	0.94	0.30	1.00	0.32	1.05	0.33	1.07	0.34	1.13	0.36	1.18	0.37	1.20	0.38	1.26	0.40	1.31	0.41	1.33	0.42	1.39	0.44	1.44	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* Werten  $\gamma_F = 1.35$

## TABELLE 7

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 2 / Windlastzone 1** (Winddruck von oben)



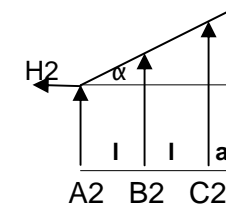
Meeres- höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50					
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30
< 286	A1 =	0.68	0.60	0.63	0.51	0.52	0.36	0.78	0.69	0.74	0.61	0.64	0.47	0.88	0.78	0.84	0.70	0.76	0.58	0.98	0.87	0.94	0.79	0.87	0.68
	B1 =	0.85	0.96	1.17	1.32	1.54	1.74	0.95	1.07	1.26	1.43	1.62	1.83	1.05	1.18	1.36	1.53	1.71	1.93	1.15	1.30	1.46	1.64	1.80	2.03
400	A1 =	0.84	0.75	0.77	0.65	0.64	0.48	0.96	0.86	0.90	0.77	0.79	0.61	1.08	0.97	1.03	0.89	0.93	0.75	1.20	1.09	1.15	1.00	1.06	0.87
	B1 =	1.03	1.14	1.42	1.57	1.88	2.07	1.15	1.28	1.54	1.70	1.97	2.18	1.28	1.41	1.65	1.83	2.08	2.30	1.40	1.55	1.77	1.96	2.19	2.41
500	A1 =	1.00	0.91	0.92	0.80	0.77	0.60	1.14	1.05	1.08	0.95	0.94	0.77	1.29	1.18	1.23	1.09	1.11	0.93	1.43	<b>1.32</b>	1.38	1.23	1.27	1.08
	B1 =	1.23	1.34	1.69	1.84	2.23	2.43	1.37	1.50	1.83	1.99	2.35	2.56	1.52	1.65	1.97	2.14	2.47	2.69	1.67	<b>1.81</b>	2.11	2.29	2.60	2.83
600	A1 =	1.19	1.10	1.10	0.98	0.92	0.75	1.36	1.27	1.28	1.15	1.12	0.95	1.53	1.43	1.46	1.32	1.32	1.14	<b>1.71</b>	<b>1.59</b>	<b>1.64</b>	<b>1.49</b>	1.51	1.33
	B1 =	1.46	1.57	2.01	2.16	2.65	2.85	1.63	1.75	2.17	2.33	2.79	3.00	1.80	1.94	2.34	2.51	2.94	3.16	<b>1.98</b>	<b>2.12</b>	<b>2.50</b>	<b>2.69</b>	3.09	3.32
700	A1 =	1.41	1.32	1.30	1.18	1.09	0.92	1.61	1.52	1.52	1.39	1.33	1.16	<b>1.81</b>	<b>1.71</b>	1.73	<b>1.59</b>	1.56	1.39	<b>1.94</b>		<b>1.79</b>	<b>1.60</b>		
	B1 =	1.72	1.83	2.37	2.52	3.13	3.33	1.93	2.05	2.56	2.73	3.29	3.50	<b>2.13</b>	<b>2.26</b>	2.76	<b>2.93</b>	3.47	3.69	<b>2.95</b>		<b>3.65</b>	<b>3.88</b>		
800	A1 =	1.65	1.57	1.53	1.40	1.28	1.11	1.89	1.80	1.78	1.65	1.56	1.39	<b>2.13</b>	<b>2.03</b>	<b>2.03</b>	<b>1.89</b>	1.84	1.66					<b>2.11</b>	
	B1 =	2.02	2.13	2.78	2.93	3.67	3.87	2.26	2.38	3.01	3.17	3.86	4.07	<b>2.50</b>	<b>2.63</b>	<b>3.23</b>	<b>3.41</b>	4.06	4.28					<b>4.28</b>	
900	A1 =	1.92	1.84	1.78	1.66	1.49	1.33	2.20	2.11	2.07	1.94	1.82	1.65					<b>2.14</b>	<b>1.96</b>						
	B1 =	2.35	2.46	3.24	3.39	4.27	4.46	2.63	2.75	3.50	3.66	4.49	4.70					<b>4.73</b>	<b>4.95</b>						
	H =	0.10	0.33	0.12	0.31	0.14	0.45	0.12	0.38	0.13	0.43	0.15	0.49	0.13	0.42	0.15	0.48	0.16	0.53	0.14	0.46	0.16	0.52	0.18	0.58

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 8**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**

**Schneelastzone 2 / Windlastzone 1 (Winddruck von oben)**



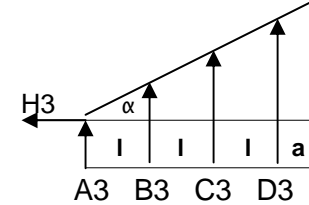
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
< 286	A2 =	0.50	0.34	0.51	0.34	0.53	0.36	0.57	0.39	0.58	0.39	0.60	0.41	0.64	0.43	0.65	0.44	0.66	0.45	0.71	0.47	0.72	0.49	0.73	0.50	$\gamma_F = 1.473$
	B2 =	1.76	1.98	1.68	1.90	1.53	1.72	2.01	2.27	1.95	2.19	1.81	2.04	2.27	2.56	2.21	2.49	2.09	2.35	2.52	2.84	2.47	2.78	2.36	2.66	
	C2 =	0.67	0.76	1.01	1.14	1.41	1.59	0.75	0.85	1.08	1.21	1.46	1.64	0.82	0.93	1.14	1.29	1.51	1.71	0.90	1.01	1.21	1.37	1.57	1.77	
400	A2 =	0.61	0.45	0.63	0.47	0.65	0.49	0.70	0.52	0.71	0.53	0.74	0.54	0.79	0.56	0.80	0.59	0.82	0.61	0.88	0.63	0.88	0.65	0.90	0.67	$\gamma_F = 1.480$
	B2 =	2.14	2.36	2.04	2.26	1.86	2.05	2.45	2.70	2.37	2.61	2.20	2.43	2.76	3.04	2.68	2.96	2.54	2.80	3.07	3.39	3.00	3.31	2.87	3.17	
	C2 =	0.82	0.91	1.23	1.35	1.71	1.89	0.91	1.01	1.31	1.44	1.77	1.96	1.00	1.11	1.39	1.54	1.84	2.03	1.09	1.21	1.48	1.63	1.91	2.11	
500	A2 =	0.74	0.57	0.75	0.59	0.79	0.62	0.84	0.66	0.86	0.67	0.89	0.69	0.95	0.74	0.96	0.76	0.98	0.77	1.05	<b>0.82</b>	1.06	0.83	1.09	0.85	$\gamma_F = 1.484$
	B2 =	2.54	2.77	2.43	2.65	2.21	2.41	2.91	3.17	2.82	3.06	2.62	2.85	3.28	3.57	3.19	3.48	3.02	3.29	3.65	<b>3.97</b>	3.57	3.89	3.42	3.72	
	C2 =	0.98	1.06	1.46	1.59	2.04	2.22	1.09	1.18	1.56	1.69	2.11	2.30	1.19	1.30	1.66	1.80	2.19	2.38	1.30	<b>1.42</b>	1.76	1.91	2.28	2.48	
600	A2 =	0.88	0.72	0.90	0.74	0.94	0.77	1.01	0.76	1.02	0.84	1.06	0.82	1.13	0.93	1.15	0.94	1.18	0.96	<b>1.26</b>	<b>1.03</b>	<b>1.27</b>	<b>1.04</b>	<b>1.30</b>	<b>1.06</b>	$\gamma_F = 1.488$
	B2 =	3.02	3.25	2.89	3.10	2.63	2.83	3.46	3.72	3.34	3.59	3.11	3.34	3.89	4.18	3.79	4.07	3.59	3.85	<b>4.33</b>	<b>4.65</b>	<b>4.24</b>	<b>4.55</b>	<b>4.05</b>	<b>4.35</b>	
	C2 =	1.16	1.25	1.73	1.86	2.42	2.60	1.29	1.38	1.85	1.98	2.50	2.69	1.42	1.52	1.97	2.11	2.60	2.79	<b>1.54</b>	<b>1.66</b>	<b>2.09</b>	<b>2.24</b>	<b>2.70</b>	<b>2.91</b>	
700	A2 =	1.05	0.89	1.07	0.91	1.12	0.95	1.20	0.93	1.22	1.03	1.16	1.01	<b>1.35</b>	<b>1.14</b>	<b>1.36</b>	<b>1.10</b>	1.40	<b>1.19</b>			<b>1.51</b>		<b>1.54</b>	<b>1.25</b>	$\gamma_F = 1.490$
	B2 =	3.57	3.79	3.41	3.63	3.10	3.30	4.08	4.34	3.95	4.19	3.67	3.91	<b>4.60</b>	<b>4.89</b>	<b>4.48</b>	<b>4.76</b>	4.23	<b>4.50</b>	<b>5.00</b>		<b>4.78</b>	<b>5.09</b>			
	C2 =	1.37	1.45	2.05	2.17	2.85	3.03	1.52	1.62	2.18	2.32	2.96	3.14	<b>1.67</b>	<b>1.78</b>	<b>2.32</b>	<b>2.47</b>	3.07	<b>3.26</b>	<b>2.46</b>		<b>3.19</b>	<b>3.29</b>			
800	A2 =	1.23	1.07	1.26	1.12	1.32	1.15	1.41	1.15	1.43	1.25	1.48	1.20	<b>1.58</b>	<b>1.38</b>	<b>1.60</b>	<b>1.30</b>	<b>1.65</b>	<b>1.44</b>							$\gamma_F = 1.492$
	B2 =	4.18	4.41	4.00	4.21	3.63	3.83	4.79	5.04	4.63	4.87	4.31	4.54	<b>5.39</b>	<b>5.68</b>	<b>5.25</b>	<b>5.53</b>	<b>4.96</b>	<b>5.23</b>							
	C2 =	1.60	1.69	2.40	2.53	3.24	3.52	1.78	1.88	2.56	2.69	3.46	3.65	<b>1.96</b>	<b>2.07</b>	<b>2.72</b>	<b>2.87</b>	<b>3.60</b>	<b>3.79</b>							
900	A2 =	1.44	1.28	1.47	1.35	1.54	1.37	1.65	1.35	1.67	1.46	1.73	1.54													$\gamma_F = 1.493$
	B2 =	4.86	5.09	4.65	4.87	4.23	4.42	5.57	5.82	5.38	5.63	5.01	5.24													
	C2 =	1.87	1.95	2.79	2.92	3.89	4.07	2.07	2.17	2.97	3.11	4.03	4.22													
	H2 =	0.19	0.64	0.21	0.69	0.23	0.75	0.22	0.72	0.24	0.78	0.26	0.84	0.25	0.81	0.26	0.87	0.28	0.92	0.27	0.90	0.29	0.95	0.31	1.01	

alle Werte sind charakteristische Werte. Für die Bemessung der nicht *kursiven* Werte  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 9 (TEIL 1)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 2 / Windlastzone 1 (Winddruck von oben)**

**3-Feld**



Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<286	A3 =	0.52	0.36	0.51	0.36	0.50	0.35	0.58	0.41	0.58	0.41	0.57	0.40	0.66	0.46	0.66	0.46	0.65	0.46	0.74	0.48	0.73	0.51	0.72	0.53	y F = 1.473
	B3 =	1.56	1.76	1.58	1.78	1.62	1.83	1.78	2.01	1.80	2.03	1.83	2.07	2.00	2.26	2.02	2.28	2.05	2.31	2.23	2.51	2.24	2.53	2.27	2.56	
	C3 =	1.55	1.74	1.47	1.65	1.30	1.47	1.77	2.00	1.70	1.82	1.56	1.75	1.99	2.25	1.93	2.18	1.80	2.03	2.22	2.50	2.16	2.44	2.05	2.31	
	D3 =	0.71	0.80	1.04	1.18	1.44	1.63	0.79	0.89	1.12	1.26	1.50	1.69	0.87	0.98	1.19	1.34	1.56	1.76	0.95	1.07	1.26	1.43	1.63	1.83	
400	A3 =	0.64	0.48	0.63	0.50	0.62	0.52	0.73	0.55	0.72	0.55	0.71	0.54	0.82	0.57	0.81	0.62	0.81	0.61	0.91	0.64	0.91	0.68	0.90	0.69	y F = 1.480
	B3 =	1.90	2.09	1.92	2.12	1.97	2.18	2.17	2.39	2.19	2.47	2.23	2.46	2.44	2.69	2.46	2.71	2.49	2.76	2.71	2.99	2.72	3.01	2.76	3.05	
	C3 =	1.88	2.08	1.78	1.97	1.58	1.75	2.15	2.38	2.07	2.28	1.89	2.09	2.42	2.68	2.35	2.59	2.19	2.42	2.70	2.98	2.63	2.90	2.49	2.75	
	D3 =	0.86	0.95	1.27	1.40	1.75	1.94	0.96	1.06	1.36	1.50	1.82	2.01	1.06	1.17	1.45	1.60	1.90	2.10	1.15	1.28	1.54	1.70	1.98	2.18	
500	A3 =	0.77	0.61	0.76	0.61	0.75	0.60	0.88	0.70	0.87	0.70	0.86	0.72	0.99	0.79	0.98	0.78	0.97	0.78	1.10	0.87	1.09	0.87	1.08	0.87	y F = 1.484
	B3 =	2.25	2.46	2.29	2.49	2.35	2.55	2.58	2.81	2.61	2.83	2.66	2.89	2.90	3.16	2.92	3.18	2.97	3.23	3.22	3.51	3.24	3.53	3.29	3.57	
	C3 =	2.24	2.44	2.12	2.31	1.89	2.05	2.56	2.79	2.46	2.68	2.25	2.45	2.89	3.14	2.80	3.04	2.61	2.84	3.21	3.49	3.13	3.40	2.96	3.22	
	D3 =	1.03	1.12	1.51	1.65	2.09	2.27	1.14	1.24	1.62	1.76	2.17	2.36	1.26	1.37	1.72	1.87	2.26	2.46	1.38	1.50	1.83	1.99	2.35	2.56	
600	A3 =	0.92	0.77	0.91	0.78	0.90	0.75	1.05	0.78	1.05	0.87	1.03	0.86	1.19	0.98	1.18	0.88	1.17	0.97	1.32	1.09	1.31	0.90	1.30	<b>1.08</b>	y F = 1.488
	B3 =	2.68	2.88	2.71	2.92	2.78	2.99	3.06	3.29	3.09	3.32	3.15	3.39	3.44	3.70	3.47	3.73	3.53	3.79	3.83	4.11	3.85	4.14	3.90	<b>4.19</b>	
	C3 =	2.66	2.86	2.52	2.70	2.24	2.40	3.04	3.27	2.92	3.14	2.67	2.87	3.43	3.68	3.32	3.56	3.10	3.33	3.81	4.09	3.71	3.99	3.52	<b>3.78</b>	
	D3 =	1.22	1.31	1.79	1.93	2.48	3.66	1.36	1.46	1.92	2.06	2.58	2.77	1.49	1.61	2.04	2.20	2.68	2.88	1.63	1.75	2.17	2.34	2.79	<b>3.00</b>	
700	A3 =	1.10	0.94	1.09	0.96	1.07	0.92	1.26	0.97	1.25	1.07	1.23	1.03	1.41	1.21	1.40	1.12	1.39	1.20	<b>1.57</b>	<b>1.25</b>	<b>1.56</b>	<b>1.34</b>	<b>1.55</b>	<b>1.26</b>	y F = 1.490
	B3 =	3.16	3.36	3.20	3.41	3.19	3.49	3.61	3.84	3.65	3.88	3.72	3.96	4.07	4.32	4.10	4.35	4.16	4.42	<b>4.52</b>	<b>4.80</b>	<b>4.55</b>	<b>4.83</b>	<b>4.60</b>	<b>4.89</b>	
	C3 =	3.14	3.34	2.97	3.16	2.64	2.81	3.59	3.82	3.45	3.66	3.16	3.36	4.05	4.30	3.92	4.16	3.66	3.89	<b>4.50</b>	<b>4.76</b>	<b>4.38</b>	<b>4.66</b>	<b>4.15</b>	<b>4.41</b>	
	D3 =	1.44	1.53	2.12	2.25	2.93	3.11	1.60	1.70	2.26	2.41	3.04	3.23	1.76	1.87	2.41	2.57	2.17	2.36	<b>1.93</b>	<b>2.05</b>	<b>2.57</b>	<b>2.73</b>	<b>3.30</b>	<b>3.51</b>	
800	A3 =	1.30	1.14	1.29	1.19	1.27	1.12	1.48	1.17	1.47	1.30	1.45	1.28	<b>1.67</b>	<b>1.46</b>	<b>1.66</b>	<b>1.36</b>	<b>1.64</b>	<b>1.45</b>	<b>1.85</b>	<b>1.84</b>	y F = 1.492				
	B3 =	3.71	3.91	3.76	3.96	3.85	4.06	4.24	4.46	4.28	4.51	4.36	4.60	<b>4.77</b>	<b>5.02</b>	<b>4.80</b>	<b>5.06</b>	<b>4.88</b>	<b>5.14</b>	<b>5.29</b>	<b>5.33</b>					
	C3 =	3.68	3.88	3.48	3.67	3.10	3.26	4.21	4.44	4.04	4.26	3.70	3.90	<b>4.74</b>	<b>5.00</b>	<b>4.59</b>	<b>4.84</b>	<b>4.29</b>	<b>4.52</b>	<b>5.27</b>	<b>5.14</b>					
	D3 =	1.69	1.78	1.48	2.62	3.43	3.62	1.88	1.98	2.65	2.80	3.56	3.76	<b>2.07</b>	<b>2.18</b>	<b>2.83</b>	<b>2.98</b>	<b>3.71</b>	<b>3.91</b>	<b>2.26</b>	<b>3.07</b>					

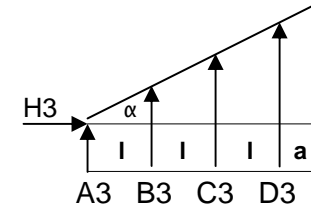
alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* werten  $yF = 1.35$ . Fette Werte nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 9 (TEIL 2)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**

**Schneelastzone 2 / Windlastzone 1 (Winddruck von oben)**

**3-Feld**



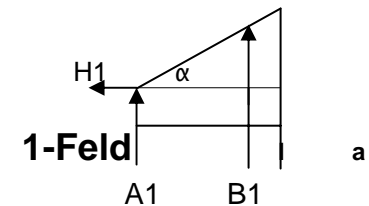
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50							
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50			
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30		
<b>900</b>	<b>A3 =</b>	1.52	1.36	1.50	1.48	1.48	1.33	1.73	1.40	1.72	1.53	1.70	1.53	<b>1.95</b>	<b>1.42</b>	<b>1.94</b>	<b>1.62</b>	<b>1.92</b>									$\gamma F = 1.493$
	<b>B3 =</b>	4.31	4.51	4.37	4.57	4.48	4.69	4.93	5.16	4.98	5.21	5.07	5.31	<b>5.54</b>	<b>5.80</b>	<b>5.59</b>	<b>5.84</b>	<b>5.67</b>									
	<b>C3 =</b>	4.28	4.48	4.05	4.24	3.60	3.77	4.90	5.12	4.70	4.92	4.30	4.50	<b>5.52</b>	<b>5.77</b>	<b>5.34</b>	<b>5.59</b>	<b>4.99</b>									
	<b>D3 =</b>	1.96	2.05	2.89	3.02	3.99	4.18	2.18	2.28	3.09	3.23	4.15	4.34	<b>2.41</b>	<b>2.52</b>	<b>3.29</b>	<b>3.44</b>	<b>4.32</b>									
	<b>H3 =</b>	0.29	0.94	0.30	1.00	0.32	1.05	0.33	1.07	0.34	1.13	0.36	1.18	0.37	1.20	0.38	1.26	0.40	1.31	0.41	1.33	0.42	1.39	0.44	1.44		

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* werten  $\gamma F = 1.35$ . Fette Werte nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.



**TABELLE 10**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 2a / Windlastzone 1** (Winddruck von oben)

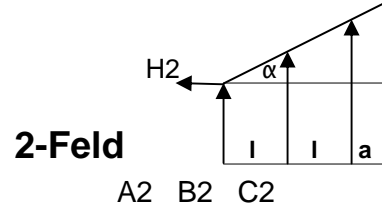


Mee- res höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50					
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30
< 286	A1 =	0.77	0.69	0.71	0.59	0.59	0.43	0.88	0.80	0.83	0.70	0.73	0.55	1.00	0.89	0.95	0.81	0.85	0.68	1.11	0.99	1.06	0.92	0.98	0.79
	B1 =	0.96	1.06	1.32	1.47	1.73	1.93	1.07	1.19	1.42	1.58	1.83	2.03	1.18	1.31	1.53	1.70	1.92	2.14	1.29	1.44	1.64	1.82	2.02	2.25
400	A1 =	0.90	0.88	0.89	0.77	0.74	0.58	1.10	1.01	1.04	0.91	0.91	0.74	1.24	1.14	1.18	1.04	1.07	0.89	1.38	<b>1.27</b>	1.33	1.18	1.22	1.04
	B1 =	1.19	1.29	1.63	1.78	2.15	2.35	1.33	1.45	1.76	1.93	2.27	2.47	1.47	1.60	1.90	2.07	2.39	2.60	1.61	<b>1.75</b>	2.03	2.22	2.51	2.74
500	A1 =	1.17	1.08	1.08	0.95	0.90	0.73	1.33	1.24	1.26	1.13	1.10	0.93	1.50	1.40	1.43	1.29	1.30	1.12	<b>1.67</b>	<b>1.56</b>	<b>1.61</b>	<b>1.46</b>	<b>1.48</b>	<b>1.30</b>
	B1 =	1.43	1.54	1.97	2.12	2.60	2.80	1.60	1.72	2.13	2.29	2.74	2.94	1.77	1.90	2.29	2.47	2.88	3.10	<b>1.94</b>	<b>2.09</b>	<b>2.46</b>	<b>2.64</b>	<b>3.03</b>	<b>3.26</b>
600	A1 =	1.40	1.32	1.30	1.17	1.08	0.92	1.61	1.51	1.51	1.38	1.33	1.16	1.81	<b>1.71</b>	1.73	<b>1.59</b>	1.56	1.38	<b>1.94</b>	<b>1.79</b>	<b>1.79</b>	<b>1.60</b>		
	B1 =	1.72	1.83	2.37	2.52	3.12	3.32	1.92	2.04	2.56	2.72	3.29	3.49	2.13	<b>2.26</b>	2.75	<b>2.93</b>	3.46	3.78	<b>2.95</b>	<b>3.13</b>	<b>3.64</b>	<b>3.87</b>		
700	A1 =	1.67	1.59	1.55	1.43	1.30	1.13	<b>1.92</b>	<b>1.82</b>	1.81	1.68	1.59	1.41	<b>2.06</b>	<b>1.92</b>	1.87	<b>1.69</b>	<b>2.13</b>							
	B1 =	2.05	2.16	2.82	2.97	3.72	3.92	<b>2.29</b>	<b>2.41</b>	3.05	3.21	3.92	4.12	<b>3.28</b>	<b>3.45</b>	4.12	<b>4.34</b>	<b>4.33</b>							
800	A1 =	1.98	1.90	1.83	1.71	1.54	1.37	<b>2.27</b>	<b>2.17</b>	<b>2.14</b>	<b>2.01</b>	1.88	1.71	<b>2.21</b>	<b>2.03</b>										
	B1 =	2.42	2.53	3.33	3.48	4.39	4.59	<b>2.70</b>	<b>2.83</b>	<b>3.60</b>	<b>3.76</b>	4.62	4.83	<b>4.87</b>	<b>5.09</b>										
900	A1 =	<b>2.32</b>	<b>2.24</b>	2.15	2.03	1.80	<b>1.64</b>	<b>2.51</b>	<b>2.20</b>	<b>2.03</b>															
	B1 =	<b>2.83</b>	<b>2.94</b>	3.90	4.05	5.14	<b>5.24</b>	<b>4.22</b>	<b>5.41</b>	<b>5.62</b>															
	H1 =	0.10	0.33	0.12	1.39	0.14	0.45	0.11	0.38	0.13	0.43	0.15	0.49	0.13	0.42	0.15	0.48	0.16	0.53	0.14	0.46	0.16	0.52	0.18	0.58

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen

**TABELLE 11**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**  
**Schneelastzone 2a / Windlastzone 1** (Winddruck von oben)



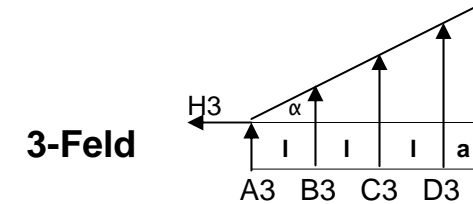
Mee-Res-höhe	Spannweite l = Kragweite a = Neigung α	1.05						1.20						1.35						1.50						
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
< 286	A2 =	0.57	0.40	0.58	0.42	0.60	0.43	0.65	0.44	0.66	0.47	0.68	0.49	0.73	0.48	0.73	0.53	0.75	0.55	0.81	0.56	0.81	0.58	0.83	0.59	γF = 1.476
	B2 =	1.98	2.20	1.89	2.11	1.72	1.91	2.26	2.52	2.19	2.44	2.04	2.27	2.55	2.84	2.48	2.76	2.35	2.61	2.84	3.16	2.77	3.09	2.65	2.95	
	C2 =	0.76	0.55	1.13	1.26	1.58	1.76	0.84	0.94	1.21	1.35	1.64	1.82	0.93	1.03	1.29	1.43	1.70	1.89	1.01	1.13	1.37	1.52	1.77	1.97	
400	A2 =	0.71	0.55	0.73	0.57	0.76	0.58	0.81	0.58	0.82	0.64	0.85	0.61	0.91	0.61	0.92	0.71	0.95	0.64	1.01	<b>0.65</b>	1.02	0.79	1.04	0.68	γF = 1.484
	B2 =	2.45	2.68	2.35	2.56	2.13	2.33	2.81	3.07	2.72	2.96	2.53	2.76	3.16	3.45	3.08	3.36	2.91	3.18	3.92	<b>3.84</b>	3.44	3.76	3.29	3.59	
	C2 =	0.94	1.03	1.41	1.54	1.96	2.14	1.05	1.14	1.50	1.94	2.03	2.22	1.15	1.26	1.60	1.74	2.11	2.31	1.25	<b>1.37</b>	1.69	1.85	2.20	2.40	
500	A2 =	0.87	0.70	0.88	0.72	0.92	0.75	0.99	0.76	1.00	0.82	1.04	0.85	1.11	0.80	1.12	0.91	1.15	0.92	<b>1.23</b>	<b>1.00</b>	<b>1.25</b>	<b>1.02</b>	<b>1.27</b>	<b>1.04</b>	γF = 1.487
	B2 =	2.96	3.19	2.84	3.05	2.58	2.77	3.39	3.65	3.28	3.53	3.05	3.28	3.82	4.11	3.72	4.00	3.52	3.79	<b>4.25</b>	<b>4.57</b>	<b>4.16</b>	<b>4.47</b>	<b>3.98</b>	<b>4.28</b>	
	C2 =	1.14	1.22	1.70	1.83	2.37	2.55	1.26	1.36	1.81	1.95	2.46	2.64	1.39	1.50	1.93	2.07	2.55	2.74	<b>1.52</b>	<b>1.63</b>	<b>2.05</b>	<b>2.20</b>	<b>2.65</b>	<b>2.85</b>	
600	A2 =	1.05	0.88	1.07	0.90	1.12	0.95	1.19	0.97	1.21	1.03	1.26	1.06	<b>1.34</b>	<b>1.07</b>	<b>1.36</b>	<b>1.18</b>	1.40	<b>1.18</b>					<b>1.54</b>	<b>1.30</b>	γF = 1.490
	B2 =	3.56	3.78	3.40	3.62	3.09	3.29	4.07	4.33	3.94	4.19	3.67	3.90	<b>4.59</b>	<b>4.88</b>	<b>4.47</b>	<b>4.75</b>	4.22	<b>4.49</b>					<b>4.77</b>	<b>5.08</b>	
	C2 =	1.37	1.45	2.04	2.17	2.85	3.03	1.52	1.61	2.18	2.31	2.95	3.13	<b>1.67</b>	<b>1.77</b>	<b>2.32</b>	<b>2.46</b>	3.06	<b>3.26</b>					<b>3.18</b>	<b>3.39</b>	
700	A2 =	1.25	1.09	1.28	1.11	1.34	1.17	<b>1.43</b>	<b>1.15</b>	1.45	<b>1.27</b>	1.50	1.28			<b>1.63</b>		<b>1.67</b>	<b>1.46</b>							γF = 1.492
	B2 =	4.24	4.46	4.06	4.27	3.69	3.88	<b>4.85</b>	<b>5.11</b>	4.69	<b>4.94</b>	4.37	4.60			<b>5.32</b>		<b>5.03</b>	<b>5.30</b>							
	C2 =	1.63	1.71	2.43	2.56	3.39	3.57	<b>1.81</b>	<b>1.90</b>	2.59	<b>2.73</b>	3.51	3.70			<b>2.76</b>		<b>3.65</b>	<b>3.84</b>							
800	A2 =	1.49	1.32	1.52	1.34	1.59	1.38	<b>1.70</b>	<b>1.51</b>	<b>1.72</b>	<b>1.54</b>	<b>1.78</b>	<b>1.55</b>													γF = 1.493
	B2 =	5.01	5.23	4.79	5.00	4.35	4.55	<b>5.73</b>	<b>5.99</b>	<b>5.54</b>	<b>5.79</b>	<b>5.16</b>	<b>5.29</b>													
	C2 =	1.92	2.01	2.87	3.00	4.00	4.18	<b>2.13</b>	<b>2.23</b>	<b>3.06</b>	<b>3.20</b>	<b>4.15</b>	<b>4.34</b>													
900	A2 =	<b>1.74</b>	<b>1.58</b>	1.78	1.62	1.86	<b>1.65</b>		<b>2.03</b>		<b>2.10</b>	<b>2.91</b>													γF = 1.494	
	B2 =	<b>5.86</b>	<b>6.09</b>	5.61	5.82	5.10	<b>5.29</b>		<b>6.49</b>		<b>6.04</b>	<b>6.27</b>														
	C2 =	<b>2.25</b>	<b>2.36</b>	3.36	3.49	4.69	<b>4.87</b>		<b>3.59</b>		<b>4.86</b>	<b>5.04</b>														
	H2 =	0.19	0.64	0.21	0.69	0.23	0.75	0.22	0.72	0.24	0.78	0.26	0.84	0.25	0.81	0.26	0.87	0.28	0.92	0.27	0.90	0.29	0.95	0.31	1.01	

alle Werte sind charakteristische Werte. Für Bemessung bei nicht *kursiven* werten γF = 1,35, **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 12 (TEIL 1)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**

**Schneelastzone 2a / Windlastzone 1 (Winddruck von oben)**



Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50							
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50			
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30		
<286	A3 =	0.59	0.43	0.58	0.45	0.57	0.42	0.67	0.46	0.66	0.49	0.65	0.48	0.75	0.50	0.75	0.55	0.74	0.54	0.84	0.57	0.83	0.61	0.82	0.60	$\gamma F = 1.478$	
	B3 =	1.75	1.95	1.78	1.98	1.82	2.03	2.00	2.23	2.02	2.25	2.06	2.30	2.25	2.51	2.27	2.53	2.31	2.57	2.50	2.79	2.52	2.81	2.55	2.84		
	C3 =	1.74	1.94	1.65	1.83	1.46	1.63	1.99	2.22	1.91	2.13	1.75	1.95	2.24	2.50	2.17	2.42	2.03	2.26	2.49	2.78	2.43	2.70	2.30	2.56		
	D3 =	0.80	0.89	1.17	1.31	1.62	1.81	0.89	0.99	1.26	1.40	1.69	1.88	0.98	1.09	1.34	1.49	1.75	1.95	1.07	1.19	1.42	1.58	1.83	2.04		
400	A3 =	0.74	0.58	0.73	0.60	0.72	0.57	0.85	0.60	0.84	0.66	0.83	0.60	0.95	0.63	0.95	0.75	0.93	0.66	1.06	0.68	1.05	0.83	1.04	0.74	$\gamma F = 1.484$	
	B3 =	2.18	2.38	2.20	2.41	2.26	2.47	2.49	2.71	2.51	2.74	2.56	2.80	2.80	3.05	2.82	3.08	2.86	3.13	3.11	3.39	3.13	3.41	3.17	3.46		
	C3 =	2.16	2.36	2.05	2.23	1.82	1.98	2.47	2.70	2.37	2.59	2.17	2.37	2.78	3.04	2.69	2.94	2.52	2.75	3.10	3.38	3.02	3.29	2.96	3.12		
	D3 =	0.99	1.08	1.46	1.59	2.02	2.20	1.10	1.20	1.56	1.70	2.09	2.28	1.21	1.32	1.66	1.81	2.18	2.38	1.33	1.45	1.77	1.93	2.27	2.48		
500	A3 =	0.90	0.75	0.90	0.79	0.88	0.73	1.03	0.78	1.03	0.85	1.01	0.84	1.16	0.83	1.16	0.96	1.14	0.96	1.29	1.07	1.29	1.07	1.27	<b>1.06</b>	$\gamma F = 1.487$	
	B3 =	2.63	2.83	2.66	2.86	2.73	2.94	3.00	3.23	3.03	3.26	3.09	3.33	3.38	3.63	3.41	3.66	3.46	3.72	3.75	4.04	3.78	4.06	3.83	<b>4.11</b>		
	C3 =	2.61	2.81	2.47	2.66	2.20	2.36	2.99	3.21	2.86	3.08	2.62	2.82	3.26	3.62	3.25	3.50	3.04	3.27	3.74	4.02	3.64	3.92	3.45	<b>3.71</b>		
	D3 =	1.20	1.29	1.76	1.89	2.43	2.62	1.33	1.43	1.88	2.02	2.53	2.72	1.47	1.58	2.01	2.16	2.63	2.83	1.60	1.72	2.13	2.29	2.74	<b>2.95</b>		
600	A3 =	1.10	0.94	1.09	0.96	1.07	0.92	1.25	0.96	1.24	1.07	1.23	1.06	1.41	1.06	1.40	1.20	1.39	1.19	<b>1.57</b>	<b>1.34</b>	<b>1.56</b>	<b>1.24</b>	<b>1.55</b>	<b>1.33</b>	$\gamma F = 1.490$	
	B3 =	3.16	3.26	3.20	3.40	3.28	3.49	3.61	3.83	3.64	3.87	3.71	3.95	4.06	4.31	4.09	4.35	4.15	4.41	<b>4.51</b>	<b>4.79</b>	<b>4.54</b>	<b>4.82</b>	<b>4.59</b>	<b>4.88</b>		
	C3 =	3.13	3.33	3.97	3.15	2.64	2.80	3.58	3.81	3.44	3.66	3.15	3.35	4.04	4.29	3.91	4.15	3.65	3.88	<b>4.49</b>	<b>4.77</b>	<b>4.37</b>	<b>4.65</b>	<b>4.14</b>	<b>4.40</b>		
	D3 =	1.44	1.53	2.11	2.25	2.92	3.11	1.60	1.70	2.26	2.40	3.03	3.23	1.76	1.87	2.41	2.56	3.16	3.36	<b>1.92</b>	<b>2.04</b>	<b>2.56</b>	<b>2.72</b>	<b>3.29</b>	<b>3.50</b>		
700	A3 =	1.32	1.16	1.30	1.18	1.28	1.14	1.50	1.17	1.49	1.32	1.48	1.30	<b>1.69</b>	<b>1.32</b>	<b>1.68</b>	<b>1.34</b>	<b>1.67</b>	<b>1.47</b>	$\gamma F = 1.492$							
	B3 =	3.76	3.96	3.81	4.01	3.91	4.11	4.30	4.52	4.34	4.57	4.42	4.66	<b>4.83</b>	<b>5.09</b>	<b>4.87</b>	<b>5.13</b>	<b>4.95</b>	<b>5.21</b>								
	C3 =	3.72	3.93	3.53	3.72	3.14	3.31	4.27	4.50	4.10	4.31	3.75	3.95	<b>4.81</b>	<b>5.06</b>	<b>4.65</b>	<b>4.90</b>	<b>4.35</b>	<b>4.58</b>								
	D3 =	1.71	1.80	2.52	2.65	3.48	3.66	1.90	2.00	2.69	2.83	3.61	3.81	<b>2.10</b>	<b>2.21</b>	<b>2.87</b>	<b>3.02</b>	<b>3.76</b>	<b>3.96</b>								

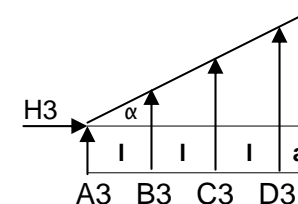
alle Werte sind charakteristische Werte. Für die Bemessung bei nicht kursiven Werten  $\gamma F = 1.35$ . **Fette Werte** nur für Rasterabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

## TABELLE 12 (TEIL 2)

BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m

Schneelastzone 2a / Windlastzone 1 (Winddruck von oben)

3-Feld

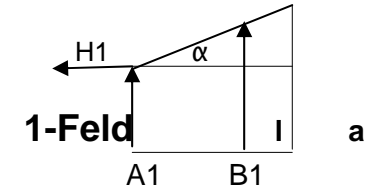


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50							
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50			
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30		
800	A3 =	1.56	1.41	1.55	1.44	1.53	1.48	1.79	<b>1.61</b>	<b>1.77</b>	<b>1.60</b>	<b>1.75</b>	<b>1.61</b>	<b>2.01</b>	<b>2.00</b>	<b>1.98</b>											$\gamma F = 1.493$
	B3 =	4.44	4.64	4.50	4.70	4.61	4.82	5.07	<b>5.30</b>	<b>5.13</b>	<b>5.35</b>	<b>5.23</b>	<b>5.46</b>	<b>5.71</b>	<b>5.75</b>	<b>5.84</b>											
	C3 =	4.41	4.60	4.17	4.36	3.71	3.87	5.04	<b>5.27</b>	<b>4.84</b>	<b>5.06</b>	<b>4.43</b>	<b>4.63</b>	<b>5.68</b>	<b>5.50</b>	<b>5.13</b>											
	D3 =	2.02	2.11	2.97	3.11	4.11	4.30	2.25	<b>2.35</b>	<b>3.18</b>	<b>3.32</b>	<b>4.27</b>	<b>4.46</b>	<b>2.48</b>	<b>3.39</b>	<b>4.44</b>											
900	A3 =	1.84	1.68	1.82	1.67	1.80	<b>1.69</b>	<b>2.10</b>	<b>1.92</b>	<b>2.09</b>	<b>2.02</b>	<b>2.06</b>	<b>1.90</b>													$\gamma F = 1.494$	
	B3 =	5.20	5.40	5.27	5.47	5.40	<b>5.61</b>	<b>5.94</b>	<b>6.17</b>	<b>6.00</b>	<b>6.23</b>	<b>6.12</b>	<b>6.35</b>														
	C3 =	5.16	5.35	4.89	5.07	4.34	<b>4.51</b>	<b>5.90</b>	<b>6.13</b>	<b>5.66</b>	<b>5.88</b>	<b>5.19</b>	<b>5.39</b>														
	D3 =	2.37	2.46	2.48	3.61	4.81	<b>5.00</b>	<b>2.63</b>	<b>2.73</b>	<b>3.72</b>	<b>3.86</b>	<b>5.00</b>	<b>5.19</b>														
	H3 =	0.29	0.94	0.30	1.00	0.32	1.05	0.33	1.07	0.34	1.13	0.36	1.18	0.37	1.20	0.38	1.26	0.40	1.31	0.41	1.33	0.42	1.39	0.44	1.44		

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht kursiven Werten  $\gamma F = 1.35$ . **Fette Werte** nur für Rasterabstand **0.61 m**  
Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 13**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 3 / Windlastzone 1** (Winddruck von oben)

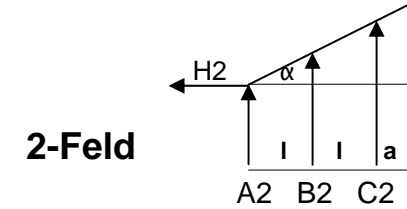


Mee- res höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50					
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30
< 256	A1 =	0.79	0.70	0.73	0.60	0.60	0.44	0.90	0.81	0.85	0.72	0.74	0.57	1.02	0.91	0.97	0.83	0.87	0.69	1.13	1.02	1.09	0.94	1.00	0.81
	B1 =	0.98	1.08	1.34	1.49	1.77	1.97	1.09	1.21	1.45	1.61	1.86	2.07	1.21	1.34	1.56	1.73	1.96	2.18	1.32	1.47	1.67	1.86	2.06	2.29
400	A1 =	1.07	0.99	0.99	0.87	0.83	0.66	1.23	1.13	1.15	1.02	1.01	0.84	1.38	1.28	1.32	1.18	1.19	1.01	<b>1.54</b>	1.42	1.48	<b>1.33</b>	1.36	<b>1.18</b>
	B1 =	1.32	1.43	1.82	1.96	2.39	2.59	1.47	1.59	1.96	2.12	2.52	2.73	1.63	1.76	2.11	2.28	2.65	2.87	<b>1.78</b>	1.93	2.26	<b>2.44</b>	2.79	<b>3.02</b>
500	A1 =	1.32	1.23	1.22	1.10	1.02	0.85	1.51	1.42	1.42	1.29	1.25	1.07	<b>1.70</b>	<b>1.60</b>	1.62	<b>1.48</b>	1.47	1.29	<b>1.89</b>	<b>1.78</b>	<b>1.82</b>	<b>1.67</b>	<b>1.68</b>	<b>1.49</b>
	B1 =	1.62	1.73	2.23	2.38	2.94	3.13	1.81	1.93	2.41	2.57	3.09	3.30	<b>2.00</b>	<b>2.13</b>	2.59	<b>2.76</b>	3.25	3.47	<b>2.19</b>	<b>2.34</b>	<b>2.77</b>	<b>2.96</b>	<b>3.42</b>	<b>3.65</b>
600	A1 =	1.61	1.52	1.49	1.36	1.24	1.08	1.84	<b>1.75</b>	1.73	1.60	1.52	1.35	2.07		<b>1.98</b>	<b>1.84</b>	1.79	1.61					<b>2.05</b>	<b>1.86</b>
	B1 =	1.97	2.08	2.71	2.86	3.57	3.77	2.20	<b>2.32</b>	2.93	3.09	3.76	3.97	2.43		<b>3.15</b>	<b>3.32</b>	3.96	4.18					<b>4.16</b>	<b>4.39</b>
700	A1 =	1.94	1.85	1.79	1.67	1.50	1.34	<b>2.22</b>	<b>2.13</b>	<b>2.09</b>	<b>1.96</b>	1.84	1.67					<b>2.16</b>	<b>1.98</b>						
	B1 =	2.37	2.48	3.26	3.41	4.30	4.50	<b>2.65</b>	<b>2.77</b>	<b>3.53</b>	<b>3.69</b>	4.53	4.74					<b>4.77</b>	<b>4.98</b>						
800	A1 =	<b>2.31</b>	<b>2.23</b>	2.14	2.02	1.79	<b>1.63</b>		<b>2.50</b>		2.19	<b>2.02</b>													
	B1 =	<b>2.82</b>	<b>2.93</b>	3.89	4.03	5.12	<b>5.32</b>		<b>4.20</b>		5.39	<b>5.60</b>													
	H1 =	0.10	0.33	0.12	1.39	0.14	0.45	0.11	0.38	0.13	0.43	0.15	0.49	0.13	0.42	0.15	0.48	0.16	0.53	0.14	0.46	0.16	0.52	0.18	0.58

alle Werte sind charakteristische Werte. Für Bemessung  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**.  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8,8** anzuschließen

**TABELLE 14**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**  
**Schneelastzone 3 / Windlastzone 1 (Winddruck von oben)**



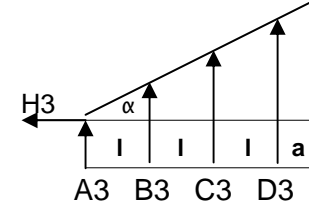
Mee- res- höhe	Spann- weite l = Krag- weite a = Neigung α =	1.05						1.20						1.35						1.50						
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<256	A2 =	0.58	0.42	0.59	0.43	0.62	0.45	0.66	0.47	0.67	0.50	0.69	0.51	0.74	0.52	0.75	0.54	0.77	0.56	0.82	0.58	0.83	0.59	0.85	0.6	<i>γ</i> F = 1.478
	B2 =	2.02	2.24	1.93	2.15	1.75	1.95	2.31	2.57	2.23	2.48	2.08	2.31	2.60	2.89	2.53	2.82	2.40	2.66	2.90	3.22	2.83	3.15	2.71	3.01	
	C2 =	0.77	0.86	1.16	1.29	1.61	1.79	0.86	0.96	1.23	1.37	1.67	1.86	0.95	1.05	1.31	1.46	1.74	1.93	1.03	1.15	1.39	1.55	1.81	2.01	
400	A2 =	0.79	0.63	0.81	0.65	0.85	0.69	0.91	0.72	0.92	0.74	0.95	0.76	1.02	0.78	1.03	0.82	1.06	0.85	<b>1.13</b>	<b>1.88</b>	<b>1.14</b>	<b>0.90</b>	1.17	<b>0.93</b>	<i>γ</i> F = 1.486
	B2 =	2.73	2.95	2.61	2.82	2.37	2,57	3.12	3.38	3.02	3.27	2.81	3.04	3.52	3.80	3.42	3.70	3.24	3.50	<b>3.91</b>	<b>4.23</b>	<b>3.83</b>	<b>4.14</b>	3.66	<b>3.96</b>	
	C2 =	1.05	1.13	1.56	1.69	2.18	2.36	1.16	1.26	1.67	1.80	2.26	2.45	1.28	1.38	1.77	1.92	2.35	2.54	<b>1.39</b>	<b>1.51</b>	<b>1.88</b>	<b>2.04</b>	2.44	<b>2.64</b>	
500	A2 =	0.98	0.82	1.00	0.84	1.05	0.88	1.12	0.94	1.14	0.99	1.18	0.98	1.26	<b>1.02</b>	1.28	<b>1.07</b>	1.31	1.12	<b>1.40</b>	<b>1.41</b>	<b>1.15</b>	<b>1.44</b>	<b>1.20</b>	<i>γ</i> F = 1.489	
	B2 =	3.35	3.57	3.20	3.42	2.91	3.10	3.83	4.09	3.70	3.95	3.45	3.68	4.32	<b>4.60</b>	4.20	<b>4.48</b>	3.97	4.24	<b>4.80</b>	<b>4.70</b>	<b>5.01</b>	<b>4.49</b>	<b>4.79</b>		
	C2 =	1.28	1.37	1.92	2.05	2.68	2.86	1.43	1.52	2.05	2.18	2.77	2.96	1.57	<b>1.68</b>	2.18	<b>2.32</b>	2.88	3.07	<b>1.71</b>	<b>2.31</b>	<b>2.47</b>	<b>3.00</b>	<b>3.20</b>		
600	A2 =	1.20	1.04	1.23	1.08	1.28	1.11	1.37	1.19	1.39	1.19	1.44	1.25	<b>1.54</b>	<b>1.56</b>	<b>1.36</b>	<b>1.60</b>	<b>1.39</b>							<i>γ</i> F = 1.491	
	B2 =	4.07	4.30	3.90	4.11	3.54	3.73	4.66	4.92	4.51	4.75	4.20	4.43	<b>5.25</b>	<b>5.11</b>	<b>5.39</b>	<b>4.83</b>	<b>5.10</b>								
	C2 =	1.56	1.65	2.34	2.46	3.26	3.44	1.74	1.83	2.49	2.63	3.37	3.56	<b>1.91</b>	<b>2.65</b>	<b>2.80</b>	<b>3.51</b>	<b>3.70</b>								
700	A2 =	1.45	1.29	1.49	1.33	1.55	1.38	<b>1.66</b>	<b>1.38</b>	<b>1.69</b>	<b>1.40</b>	1.75	<b>1.56</b>													<i>γ</i> F = 1.493
	B2 =	4.90	5.13	4.69	4.90	4.26	4.46	<b>5.61</b>	<b>5.82</b>	<b>5.43</b>	<b>5.67</b>	5.05	<b>5.28</b>													
	C2 =	1.88	1.97	2.81	2.94	3.92	4.10	<b>2.09</b>	<b>2.19</b>	<b>3.00</b>	<b>3.14</b>	4.06	<b>4.25</b>													
800	A3 =	<b>1.74</b>	<b>1.57</b>	1.78	1.60	1.86	<b>1.66</b>					<b>2.09</b>	<b>1.90</b>													<i>γ</i> F = 1.494
	B3 =	<b>5.94</b>	<b>6.06</b>	5.58	5.80	5.08	<b>5.27</b>					<b>6.01</b>	<b>6.25</b>													
	C2 =	<b>2.24</b>	<b>2.33</b>	3.35	3.48	4.67	<b>4.85</b>					<b>4.84</b>	<b>5.02</b>													
	H2 =	0.19	0.64	0.21	0.69	0.23	0.75	0.22	0.72	0.24	0.78	0.26	0.84	0.25	0.81	0.26	0.87	0.28	0.92	0.27	0.90	0.29	0.95	0.31	1.01	

alle Werte sind charakteristische Werte. Für Bemessung bei nicht *kursiven* Werten  $\gamma_F = 1.35$  **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 15**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 3 / Windlastzone 1 (Winddruck von oben)**

**3-Feld**

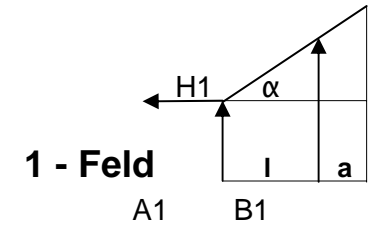


Mee- res- höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50						
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<256	A3 =	0.60	0.44	0.59	0.44	0.58	0.47	0.69	0.51	0.68	0.52	0.67	0.50	0.77	0.52	0.77	0.55	0.76	0.56	0.86	0.58	0.95	0.60	0.84	0.63	$\gamma_F = 1.478$
	B3 =	1.79	1.99	1.91	2.02	1.86	2.07	2.05	2.27	2.07	2.30	2.11	2.34	2.30	2.56	2.31	2.58	2.36	2.62	2.56	2.84	2.57	2.86	2.61	2.83	
	C3 =	1.78	1.97	1.68	1.87	1.49	1.66	2.03	2.26	1.95	2.17	1.79	1.99	2.29	2.54	2.22	2.46	2.07	2.30	2.55	2.83	2.48	2.76	2.35	2.61	
	D3 =	0.82	0.91	1.20	1.33	1.66	1.84	0.91	1.01	1.28	1.42	1.72	1.91	1.00	1.11	1.37	1.52	1.79	1.99	1.09	1.21	1.45	1.61	1.87	2.07	
400	A3 =	0.83	0.67	0.82	0.68	0.81	0.70	0.95	0.77	0.94	0.79	0.93	0.76	1.06	0.78	1.06	0.86	1.05	0.85	1.18	1.89	1.18	0.91	1.17	0.95	$\gamma_F = 1.486$
	B3 =	2.42	2.62	2.45	2.65	2.51	2.72	2.76	2.99	2.79	3.02	2.85	3.08	3.11	3.36	3.13	3.39	3.18	3.44	3.45	3.74	3.48	3.76	3.52	3.81	
	C3 =	2.40	2.60	2.27	2.46	2.02	2.19	2.75	2.97	2.64	2.85	2.41	2.61	3.09	3.35	2.99	3.24	2.80	3.03	3.44	3.72	3.35	3.63	3.17	3.43	
	D3 =	1.10	1.19	1.62	1.75	2.24	2.42	1.22	1.33	1.73	1.87	2.33	2.52	1.35	1.46	1.85	2.00	2.42	2.62	1.47	1.59	1.96	2.12	2.52	2.73	
500	A3 =	1.03	0.87	1.02	0.90	1.00	0.94	1.17	0.99	1.17	1.04	1.15	0.98	1.32	1.02	1.31	1.12	1.30	1.16	1.47	1.19	1.46	1.22	1.45	1.26	$\gamma_F = 1.489$
	B3 =	2.97	3.17	3.01	3.21	3.08	3.29	3.39	3.62	3.43	3.66	3.49	3.73	3.82	4.07	3.85	4.10	3.91	4.17	4.24	4.52	4.27	4.55	4.32	4.61	
	C3 =	2.95	3.14	2.79	2.98	2.48	2.64	3.37	3.60	3.23	3.45	2.96	3.16	3.80	4.05	3.68	3.92	3.43	3.66	4.22	4.50	4.11	4.39	3.89	4.16	
	D3 =	1.35	1.44	1.99	2.12	2.75	2.93	1.50	1.60	2.12	2.27	2.85	3.05	1.66	1.77	2.27	2.42	2.97	3.17	1.81	1.93	2.41	2.57	3.09	3.30	
600	A3 =	1.26	1.10	1.35	1.18	1.23	1.18	1.44	1.26	1.43	1.27	1.42	1.28	1.62	1.42	1.61	1.45	1.60	1.40	1.80	1.79	1.78				$\gamma_F = 1.491$
	B3 =	3.61	3.81	3.66	3.86	3.75	3.96	4.13	4.35	4.17	4.40	4.25	4.48	4.64	4.90	4.68	4.94	4.75	5.01	5.16	5.19	5.26				
	C3 =	3.58	3.78	3.39	3.58	3.02	3.18	4.10	4.33	3.94	4.15	3.60	3.80	4.62	4.87	4.47	4.72	4.18	4.41	5.14	5.00	4.74				
	D3 =	1.64	1.73	2.42	2.55	3.34	3.53	1.83	1.93	2.58	2.73	3.47	3.66	2.01	2.13	2.76	2.91	3.61	3.81	2.20	2.93	3.77				
700	A3 =	1.53	1.37	1.52	1.41	1.49	1.35	1.75	1.41	1.74	1.45	1.72	1.55	1.97	1.76	1.96	1.50	1.94							$\gamma_F = 1.493$	
	B3 =	4.35	4.55	4.40	4.61	4.52	4.72	4.97	5.20	5.02	5.25	5.12	5.35	5.59	5.84	5.63	5.89	5.72								
	C3 =	4.31	4.51	4.09	4.27	3.63	3.80	4.94	5.16	4.74	4.96	4.34	4.54	5.56	5.82	5.38	5.63	5.03								
	D3 =	1.98	2.07	2.91	3.05	4.03	4.21	2.20	2.30	3.11	3.25	4.18	4.37	2.43	2.54	3.32	3.47	4.35								
800	A3 =	1.83	1.67	1.82	1.72	1.79	1.77	2.09	1.91	2.08	1.90	2.06	1.89												$\gamma_F = 1.494$	
	B3 =	5.18	5.38	5.24	5.45	5.38	5.59	5.92	6.14	5.98	6.20	6.09	6.33													
	C3 =	5.14	5.33	4.87	5.05	4.32	4.49	5.88	6.11	5.64	5.86	5.17	5.37													
	D3 =	2.36	2.45	3.47	3.60	4.79	4.98	2.62	2.72	3.71	3.85	4.98	5.17													
	H3 =	0.29	0.94	0.30	1.00	0.32	1.05	0.33	1.07	0.34	1.13	0.36	1.18	0.37	1.20	0.38	1.26	0.40	1.31	0.41	1.33	0.42	1.39	0.44	1.44	

alle Werte sind charakteristische werte. Für die Bemessung bei nicht *kursiven* Werten  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 16**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 1 / Windlastzone 2 (Winddruck von oben)**



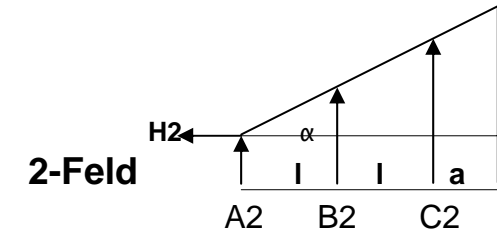
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50					
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
	Neigung α =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
<b>&lt;400</b>	<b>A1</b> =	0.68	0.56	0.62	0.46	0.51	0.30	0.77	0.65	0.73	0.55	0.63	0.41	0.87	0.73	0.83	0.64	0.75	0.51	0.97	0.82	0.93	0.73	0.86	0.51
	<b>B1</b> =	0.85	0.98	1.17	1.35	1.54	1.79	0.95	1,10	1.26	1.46	1.62	1.88	1,05	1.22	1.35	1.57	1.70	1.98	1.15	1.33	1.45	1.69	1.79	2,08
<b>500</b>	<b>A1</b> =	0.75	0.64	0.69	0.53	0.57	0.36	0.86	0.74	0.81	0.64	0.71	0.48	0.98	0.83	0.92	0.74	0.83	0.59	1,08	0.93	1,04	0.84	0.95	0.71
	<b>B1</b> =	0.94	1,08	1.29	1.48	1.71	1.95	1,05	1.20	1.40	1.60	1.80	2,06	1.16	1.33	1.50	1.72	1.89	2,17	1.27	1.46	1.61	1.84	1.99	2.28
<b>600</b>	<b>A1</b> =	0.84	0.73	0.78	0.62	0.64	0.43	0.97	0.84	0.91	0.73	0.79	0.56	1,09	0.95	1,04	0.85	0.93	0.70	1.21	1,06	1.16	0.97	1,07	0.82
	<b>B1</b> =	1,05	1.19	1.45	1.63	1.90	2,15	1.17	1.33	1.56	1.76	2,00	2.27	1.30	1.47	1.68	1.90	2,11	2.39	1.42	1.61	1.80	2,03	2.22	2.51
<b>700</b>	<b>A1</b> =	0.95	0.83	0.87	0.71	0.73	0.51	1.08	0.96	1,02	0.85	0.89	0.66	1.22	1.08	1.16	0.98	1,05	0.81	1.36	<b>1.21</b>	1.31	1.11	1.20	0.95
	<b>B1</b> =	1.17	1.31	1.62	1.81	2,13	2.38	1.31	1.47	1.75	1.95	2.24	2.51	1.45	1.62	1.88	2,10	2.36	2.64	1.59	<b>1.78</b>	2,01	2.25	2.49	2.78
<b>800</b>	<b>A1</b> =	1,06	0.95	0.98	0.82	0.82	0.60	1.22	1.09	1.14	0.97	1,00	0.78	1.37	1.23	1.31	1.12	1.18	0.94	<b>1.53</b>	<b>1.38</b>	<b>1.47</b>	<b>1.27</b>	1.35	1.10
	<b>B1</b> =	1.32	1.45	1.81	2,00	2.39	2.64	1.47	1.62	1.96	2,16	2.52	2.78	1.63	1.80	2,11	2.33	2.65	2.92	<b>1.78</b>	<b>1.97</b>	<b>2.26</b>	<b>2.49</b>	2.79	3,08
	<b>H1</b> =	0.13	0.43	0.16	0.51	0.18	0.58	0.15	0.49	0.17	0.56	0.20	0.64	0.17	0.54	0.19	0.62	0.21	0.69	0.18	0.60	0.21	0.68	0.23	0.75

alle Werte sind charakteristische Werte. Für Bemessung: **YF = 1.35**  
**Fette Werte** nur für Rahmenabstand **0.61 m**.



**TABELLE 17**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**  
**Schneelastzone 1 / Windlastzone 2** (Winddruck von oben)



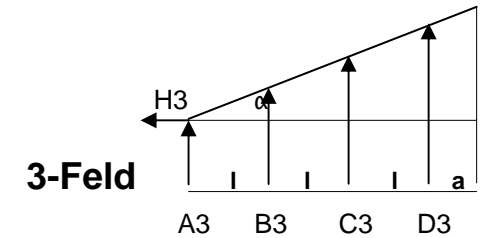
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
< 400	A2 =	0.49	0.27	0.50	0.28	0.52	0.29	0.56	0.31	0.56	0.32	0.58	0.33	0.63	0.35	0.63	0.37	0.65	0.37	0.69	0.40	0.70	0.40	0.71	0.42	$\gamma F = 1.466$
	B2 =	1.75	2.03	1.67	1.95	1.52	1.77	2.00	2.33	1.94	2.25	1.80	2.10	2.26	2.62	2.20	2.55	2.08	2.42	2.51	2.92	2.46	2.85	2.35	2.73	
	C2 =	0.67	0.78	1.00	1.17	1.40	1.63	0.75	0.87	1.07	1.24	1.45	1.69	0.82	0.95	1.14	1.32	1.51	1.75	0.89	1.04	1.21	1.40	1.57	1.62	
500	A2 =	0.55	0.33	0.56	0.34	0.58	0.36	0.62	0.38	0.63	0.39	0.65	0.40	0.70	0.43	0.71	0.44	0.73	0.45	0.78	0.48	0.78	0.48	0.80	0.50	$\gamma F = 1.473$
	B2 =	1.94	2.23	1.86	2.13	1.69	1.94	2.23	2.55	2.15	2.46	2.00	2.29	2.51	2.87	2.44	2.80	2.31	2.64	2.79	3.19	2.73	3.12	2.61	2.99	
	C2 =	0.75	0.86	1.12	1.28	1.55	1.78	0.83	0.95	1.19	1.36	1.61	1.85	0.91	1.04	1.27	1.45	1.67	1.91	0.99	1.14	1.34	1.54	1.74	1.99	
600	A2 =	0.61	0.40	0.63	0.42	0.65	0.43	0.70	0.45	0.71	0.47	0.73	0.47	0.79	0.49	0.80	0.52	0.82	0.53	0.87	0.57	0.88	0.59	0.90	0.59	$\gamma F = 1.477$
	B2 =	2.17	2.45	2.08	2.35	1.89	2.13	2.49	2.81	2.40	2.72	2.24	2.53	2.80	3.16	2.72	3.08	2.58	2.91	3.11	3.52	3.05	3.44	2.91	3.29	
	C2 =	0.83	0.94	1.25	1.41	1.74	1.96	0.93	1.05	1.33	1.50	1.80	2.03	1.02	1.15	1.41	1.60	1.87	2.11	1.11	1.26	1.50	1.69	1.94	2.20	
700	A2 =	0.69	0.48	0.71	0.50	0.74	0.51	0.79	0.53	0.80	0.56	0.83	0.58	0.89	0.61	0.90	0.63	0.92	0.64	0.99	<b>0.69</b>	1.00	0.71	1.02	0.71	$\gamma F = 1.481$
	B2 =	2.43	2.71	2.32	2.60	2.11	2.36	2.78	3.11	2.69	3.00	2.50	2.80	3.13	3.50	3.05	3.41	2.89	3.22	3.49	<b>3.89</b>	3.41	3.81	3.26	3.64	
	C2 =	0.93	1.04	1.39	1.56	1.94	2.17	1.04	1.16	1.49	1.66	2.01	2.25	1.14	1.27	1.58	1.77	2.09	2.34	1.24	<b>1.39</b>	1.68	1.87	2.18	2.43	
800	A2 =	0.78	0.57	0.80	0.59	0.83	0.61	0.89	0.63	0.81	0.66	0.94	0.68	1.00	0.73	1.02	0.75	1.04	0.77	1.11	<b>0.79</b>	1.13	<b>0.82</b>	1.15	0.84	$\gamma F = 1.484$
	B2 =	2.72	3.01	2.61	2.88	2.37	2.61	3.12	3.44	3.01	3.33	2.81	3.10	3.51	3.88	3.42	3.77	3.23	3.57	3.91	<b>4.31</b>	3.82	<b>4.22</b>	3.65	4.03	
	C2 =	1.05	1.15	1.56	1.73	2.18	2.41	1.16	1.28	1.67	1.84	2.26	2.49	1.28	1.41	1.77	1.96	2.34	2.59	1.39	<b>1.54</b>	1.88	<b>2.08</b>	2.44	2.69	
	H2 =	0.25	0.83	0.28	0.90	0.30	0.98	0.29	0.94	0.31	1.01	0.33	1.09	0.32	1.05	0.34	1.13	0.37	1.20	0.36	1.16	0.38	1.24	0.40	1.31	

alle Werte sind charakteristische Werte. Für Bemessung der nicht *kursiven* Werte:  $\gamma F = 1.35$ , **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 18**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**

**Schneelastzone 1 / Windlastzone 2** (Winddruck von oben)

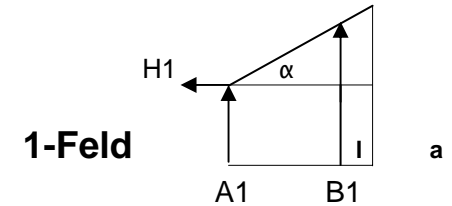


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	
<b>&lt; 400</b>	<b>A3</b> =	0.50	0.29	0.49	0.29	0.48	0.30	0.57	0.33	0.56	0.33	0.55	0.34	0.64	0.38	0.63	0.40	0.63	0.37	0.71	0.42	0.71	0.42	0.70	0.44	<i>γF</i> = 1.466
	<b>B3</b> =	1.55	1.80	1.57	1.83	1.61	1.87	1.77	2,06	1.79	5,08	1.83	2,12	2,00	2.32	2,01	2.34	2,04	2.37	2,22	2.58	2,23	2.59	2.26	2.63	
	<b>C3</b> =	1.54	1.79	1.46	1.70	1.30	1.51	1.76	2,05	1.69	1.97	1.55	1.80	1.99	2.31	1.92	2,23	1.80	2,09	2,21	2.57	2,15	2.50	2,04	2.37	
	<b>D3</b> =	0.71	0.82	1,04	1.21	1.44	1.67	0.79	0.91	1,11	1.29	1.49	1.73	0.87	1,01	1.19	1.38	1.55	1.81	0.95	1,10	1.26	1.46	1.62	1.88	
<b>500</b>	<b>A3</b> =	0.56	0.35	0.55	0.36	0.54	0.35	0.64	0.40	0.63	0.40	0.62	0.42	0.72	0.46	0.71	0.46	0.70	0.45	0.80	0.51	0.80	0.50	0.79	0.52	<i>γF</i> = 1.473
	<b>B3</b> =	1.72	1.98	1.75	2,00	1.79	2,05	1.97	2,26	1.99	2.28	2,03	2.32	2,22	2.54	2,23	2.56	2,27	2.60	2.46	2.82	2.48	2.84	2.51	2.87	
	<b>C3</b> =	1.71	1.96	1.62	1.86	1.44	1.65	1.96	2,24	1.88	2,15	1.72	1.87	2,20	2.53	2,13	2.45	1.99	2.28	2.45	2.81	2.39	2.74	2.26	2.56	
	<b>D3</b> =	0.78	0.90	1.15	1.32	1.60	1.83	0.87	1,00	1.23	1.41	1.66	1.90	0.96	1,10	1.32	1.51	1.73	1.98	1,05	1.20	1.40	1.60	1.80	2,06	
<b>600</b>	<b>A3</b> =	0.63	0.43	0.63	0.43	0.61	0.42	0.72	0.46	0.72	0.48	0.71	0.47	0.82	0.50	0.81	0.55	0.80	0.57	0.91	0.61	0.90	0.62	0.90	0.60	<i>γF</i> = 1.477
	<b>B3</b> =	1.93	2,18	1.95	2,20	2,00	2.26	2.20	2.49	2.22	2.51	2.27	2.56	2.47	2.80	2.49	2.82	2.53	2.86	2.75	3,11	2.77	3,13	2.80	3,17	
	<b>C3</b> =	1.91	2,16	1.81	2,05	1.61	1.82	2,19	2.47	2,10	2.37	1.92	2,17	2.46	2.78	2.38	2.69	2.23	2.52	2.74	3,10	2.67	3,02	2.53	2.85	
	<b>D3</b> =	0.88	0.99	1.29	1.46	1.78	2,02	0.97	1,10	1.38	1.56	1.85	2,09	1,07	1.21	1.47	1.66	1.93	2,18	1.17	1.33	1.56	1.77	2,01	2.27	
<b>700</b>	<b>A3</b> =	0.72	0.51	0.71	0.53	0.70	0.52	0.82	0.52	0.81	0.58	0.80	0.60	0.92	0.66	0.92	0.69	0.90	0.66	1,03	0.73	1,02	0.75	1,01	0.72	<i>γF</i> = 1.481
	<b>B3</b> =	2,16	2.41	2.18	2.44	2.24	2.50	2.46	2.75	2.49	2.78	2.54	2.83	2.77	3,09	2.79	3,12	2.84	3,17	3,08	3.44	3,10	3.46	3,14	3.50	
	<b>C3</b> =	2,14	2.39	2,03	2.26	1.80	2,01	2.45	2.73	2.35	2.62	2,15	2.40	2.76	3,08	2.67	2.98	2.49	2.78	3,07	3.42	2.99	3.33	2.83	3,16	
	<b>D3</b> =	0.98	1,10	1.44	1.61	2,00	2.23	1.09	1.22	1.54	1.72	2,07	2.31	1.20	1.34	1.64	1.84	2,16	2.41	1.31	1.47	1.75	1.95	2.25	2.51	
<b>800</b>	<b>A3</b> =	0.81	0.61	0.80	0.63	0.79	0.65	0.93	0.67	0.92	0.69	0.91	0.71	1,04	0.78	1,04	0.79	1,02	0.81	1.16	0.82	1.15	0.86	1.14	0.88	<i>γF</i> = 1.484
	<b>B3</b> =	2.42	2.67	2.45	2.70	2.51	2.77	2.76	3,05	2.79	3,08	2.84	3,14	3,10	3.43	3,13	3.45	3,18	3.51	3.45	3.81	3.47	3.83	3.52	3.88	
	<b>C3</b> =	2.40	2.65	2.27	2.51	2,02	2.23	2.74	3,03	2.63	2.91	2.41	2.66	3,09	3.41	2.99	3.30	2.79	3,08	3.44	3.79	3.35	3.69	3,17	3.50	
	<b>D3</b> =	1.10	1.21	1.62	1.79	2.24	2.47	1.22	1.35	1.73	1.91	2.32	2.56	1.35	1.49	1.84	2,03	2.42	2.67	1.47	1.62	1.96	2,16	2.52	2.78	
	<b>H3</b> =	0.37	1,22	0.40	1.30	0.42	1.37	0.42	1.39	0.45	1.46	0.47	1.54	0.48	1.56	0.50	1.63	0.52	1.71	0.53	1.73	0.55	1.80	0.57	1.88	

alle Werte sind charakteristische Werte. Für die Bemessung der nicht *kursiven* Werte ***γF* = 1.35**, **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 19**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 1a / Windlastzone 2 (Winddruck von oben)**

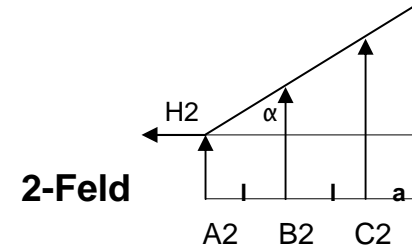


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50					
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
<b>&lt;400</b>	<b>A1 =</b>	0.74	0.63	0.68	0.52	0.56	0.35	0.85	0.73	0.80	0.63	0.70	0.47	0.96	0.82	0.91	0.73	0.82	0.58	1,07	0.92	1,02	0.83	0.94	0.69
	<b>B1 =</b>	0.93	1,06	1.28	1.47	1.69	1.93	1,04	1.19	1.38	1.58	1.77	2,04	1.15	1.32	1.49	1.70	1.87	2,14	1.26	1.44	1.59	1.83	1.96	2,25
<b>500</b>	<b>A1 =</b>	0.84	0.73	0.77	0.61	0.64	0.43	0.96	0.84	0.90	0.73	0.79	0.56	1,08	0.94	1,03	0.85	0.93	0.69	1.21	1,05	1.16	0.96	1,06	0.82
	<b>B1 =</b>	1,04	1.18	1.44	1.63	1.90	2,15	1.17	1.32	1.55	1.76	2,00	2.26	1.29	1.46	1.67	1.89	2,10	2.38	1.41	1.60	1.79	2,03	2.21	2.50
<b>600</b>	<b>A1 =</b>	0.95	0.84	0.88	0.72	0.73	0.51	1,09	0.97	1,03	0.85	0.90	0.67	1.23	1,09	1.17	0.99	1,06	0.82	1.37	<b>1.22</b>	1.31	1.12	1.21	0.96
	<b>B1 =</b>	1.18	1.32	1.63	1.82	2,15	2.39	1.32	1.47	1.76	1.96	2.26	2.52	1.46	1.63	1.89	2,11	2.38	2.65	1.60	<b>1.79</b>	2,03	2.26	2.50	2.79
700	<b>A1 =</b>	1.08	0.97	1,00	0.84	0.83	0.62	1.24	1.11	1.17	0.99	1,02	0.79	1.40	1.26	1.33	1.15	1.20	0.95	<b>1.55</b>	<b>1.40</b>	1.49	<b>1.30</b>	1.38	1.13
	<b>B1 =</b>	1.34	1.48	1.84	2,03	2.43	2.68	1.50	1.65	1.99	2.20	2.56	2.82	1.65	1.82	2,14	2.36	2.69	2.97	<b>1.81</b>	<b>2,00</b>	2.29	<b>2.53</b>	2.83	3,12
<b>800</b>	<b>A1 =</b>	1.23	1.12	1.13	0.97	0.95	0.73	1.41	1.28	1.32	1.15	1.16	0.93	1.59	<b>1.45</b>	1.51	1.33	1.36	1.13	<b>1.76</b>	<b>1.61</b>	<b>1.70</b>	<b>1.50</b>	1.56	<b>1.31</b>
	<b>B1 =</b>	1.51	1.65	2,09	2.28	2.75	3,00	1.69	1.85	2.25	2.46	2.90	3,16	1.87	<b>2,04</b>	2.43	2.64	3,05	3.32	<b>2,05</b>	<b>2.24</b>	<b>2.60</b>	<b>2.83</b>	3.21	<b>3.50</b>
	<b>H1 =</b>	0.13	0.43	0.16	0.51	0.18	0.58	0.15	0.49	0.17	0.56	0.20	0.64	0.17	0.54	0.19	0.62	0.21	0.69	0.18	0.60	0.21	0.68	0.23	0.75

alle Werte sind charakteristische Werte. Für die Bemessung:  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 20**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE A2, B2, C2, H in KN/m**  
**Schneelastzone 1a / Windlastzone 2** (Winddruck von oben)



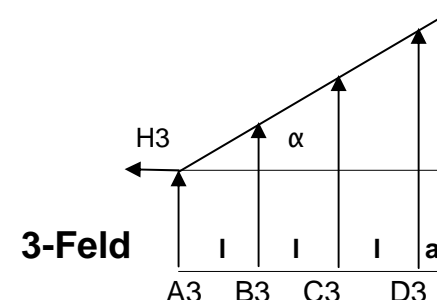
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<400	A2 =	0.54	0.33	0.55	0.34	0.57	0.35	0.61	0.37	0.62	0.38	0.64	0.39	0.69	0.40	0.70	0.42	0.72	0.44	0.77	0.45	0.77	0.47	0.79	0.48	$\gamma_F = 1,472$
	B2 =	1.92	2,20	1.84	2,11	1.67	1.92	2,20	2.52	2,13	2.44	1.98	2.27	2.48	2.84	2.41	2.77	2.28	2.62	2.75	3,16	2.69	3,09	2.58	2.96	
	C2 =	0.74	0.75	1,10	1.26	1.54	1.76	0.82	0.94	1.17	1.35	1.59	1.83	0.90	1,03	1.25	1.43	1.65	1.90	0.98	1.13	1.33	1.52	1.72	1.97	
500	A2 =	0.61	0.40	0.62	0.41	0.65	0.43	0.70	0.46	0.71	0.48	0.73	0.50	0.79	0.51	0.79	0.52	0.81	0.54	0.87	0.55	0.88	0.57	0.90	0.58	$\gamma_F = 1.477$
	B2 =	2,16	2.45	2,07	2.34	1.88	2,13	2.47	2.80	2.39	2.71	2.23	2.52	2.79	3,15	2.71	3,07	2.57	2.90	3,10	3.50	3,03	3.43	2.90	3,28	
	C2 =	0.83	0.84	1.24	1.40	1.73	1.96	0.92	1,04	1.32	1.50	1.79	2,03	1,01	1.15	1.41	1.59	1.86	2,10	1.11	1.25	1.49	1.69	1.93	2,19	
600	A2 =	0.70	0.48	0.71	0.49	0.74	0.51	0.80	0.53	0.81	0.55	0.84	0.58	0.90	0.62	0,91	0.63	0.93	0.65	1,00	<b>0.67</b>	1,00	0.70	1,02	0.72	$\gamma_F = 1.481$
	B2 =	2.45	2.73	2.34	2.61	2,13	2.37	2.80	3,12	2.71	3,02	2.52	2.81	3,15	3.52	3,07	3.43	2.90	3,24	3.51	<b>3.91</b>	3.43	3.83	3.28	3.66	
	C2 =	0.94	0.95	1.40	1.57	1.96	2,18	1,04	1.16	1.50	1.67	2,03	2.26	1.15	1.28	1.59	1.78	2,11	2.35	1.25	<b>1.40</b>	1.69	1.88	2.19	2.44	
700	A2 =	0.80	0.58	0.81	0.60	0.85	0.61	0.91	0.66	0.92	0.68	0.95	0.70	1,02	0.67	1,03	0.76	1,06	0.78	<b>1.14</b>	<b>0.83</b>	<b>1.15</b>	<b>0.85</b>	1.17	<b>0.87</b>	$\gamma_F = 1.485$
	B2 =	2.77	3,05	2.65	2.92	2.41	2.65	3,17	3.50	3,07	3.38	2.85	3,15	3,57	3.94	3.48	3.83	3.29	3.63	<b>3.97</b>	<b>4.38</b>	<b>3.89</b>	<b>4.28</b>	3.72	<b>4,10</b>	
	C2 =	1,06	1.07	1.59	1.75	2.22	2.44	1.18	1.30	1.69	1.87	2.30	2.53	1.30	1.43	1.80	1.99	2.38	2.63	<b>1.42</b>	<b>1.56</b>	<b>1.91</b>	<b>2,11</b>	2.48	<b>2.73</b>	
800	A2 =	0.91	0.69	0.93	0.71	0.97	0.73	1,04	0.79	1,05	0.81	1.09	0.83	1.16	<b>0.82</b>	1.18	0.90	1.21	0.93	<b>1.29</b>	<b>0.99</b>	<b>1.31</b>	<b>1.00</b>	<b>1.33</b>	<b>1.04</b>	$\gamma_F = 1.487$
	B2 =	3,14	3.42	3,00	3.27	2.73	2.97	3.59	3.91	3.47	3.78	3.23	3.52	4,04	<b>4.41</b>	3.94	4,29	3.72	4,06	<b>4.49</b>	<b>4.90</b>	<b>4.40</b>	<b>4.80</b>	<b>4,21</b>	<b>4.59</b>	
	C2 =	1.20	1.21	1.80	1.96	2.51	2.73	1.34	1.46	1.92	2,09	2.60	2.83	1.47	<b>1.60</b>	2,04	2.22	2.70	2.94	<b>1.60</b>	<b>1.75</b>	<b>2.17</b>	<b>2.36</b>	<b>2.81</b>	<b>3,06</b>	
	H2 =	0.25	0,83	0.28	0.90	0.30	0.98	0.29	0.94	0.31	1,01	0.33	1,09	0.32	1,05	0.34	1,13	0.37	1,20	0.36	1,16	0.38	1,24	0.40	1.31	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* werten  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 21**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE: A3, B3, C3, D3, H3 in KN/m**

**Schneelastzone 1a / Windlastzone 2 (Winddruck von oben)**

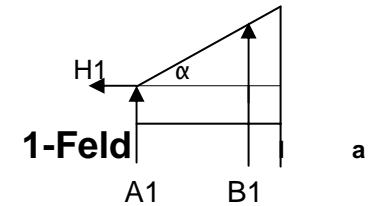


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<400	A3 =	0.55	0.35	0.55	0.36	0.53	0.38	0.63	0.40	0.63	0.40	0.61	0.40	0.71	0.41	0.70	0.44	0.70	0.44	0.79	0.49	0.78	0.49	0.78	0.49	$\gamma_F = 1.472$
	B3 =	1.70	1.95	1.72	1.98	1.77	2.03	1.95	1.23	1.96	2.26	2.00	2.30	2.19	2.51	2.21	2.53	2.24	2.57	2.43	2.79	2.45	2.81	2.48	2.84	
	C3 =	1.69	1.94	1.60	1.84	1.42	1.63	1.93	2.22	1.86	2.13	1.70	1.95	2.18	2.50	2.11	2.42	1.97	2.26	2.42	2.78	2.36	2.71	2.23	2.56	
	D3 =	0.78	0.89	1.14	1.31	1.58	1.81	0.86	0.99	1.22	1.40	1.64	1.88	0.95	1.09	1.30	1.49	1.70	1.96	1.04	1.19	1.38	1.59	1.78	2.04	
500	A3 =	0.63	0.42	0.62	0.44	0.61	0.45	0.72	0.48	0.71	0.49	0.70	0.52	0.81	0.55	0.80	0.57	0.79	0.58	0.90	0.61	0.89	0.60	0.89	0.62	$\gamma_F = 1.477$
	B3 =	1.92	2.17	1.94	2.20	1.99	2.25	2.19	2.48	2.21	2.50	2.26	2.55	2.46	2.79	2.48	2.81	2.52	2.85	2.74	3.10	2.75	3.12	2.79	3.16	
	C3 =	1.90	2.15	1.80	2.04	1.60	1.81	2.18	2.46	2.09	2.36	1.91	2.16	2.45	2.77	2.37	2.68	2.22	2.51	2.73	3.08	2.66	3.00	2.51	2.84	
	D3 =	0.87	0.99	1.28	1.45	1.78	2.01	0.97	1.10	1.37	1.55	1.84	2.08	1.07	1.21	1.46	1.65	1.92	2.17	1.17	1.32	1.56	1.76	2.00	2.26	
600	A3 =	0.72	0.52	0.77	0.53	0.70	0.55	0.83	0.59	0.82	0.59	0.81	0.60	0.93	0.64	0.92	0.65	0.91	0.66	1.03	0.74	1.03	0.73	1.01	0.72	$\gamma_F = 1.481$
	B3 =	2.17	2.42	2.20	2.45	2.25	2.51	2.48	2.77	2.50	2.79	2.55	2.85	2.79	3.11	2.81	3.14	2.85	3.18	3.10	3.46	3.12	3.48	3.16	3.52	
	C3 =	2.15	2.40	2.04	2.27	1.81	2.02	2.46	2.75	2.36	2.64	2.16	2.42	2.77	3.10	2.69	3.00	2.51	2.80	3.08	3.44	3.01	3.35	2.85	3.18	
	D3 =	0.99	1.10	1.45	1.62	2.01	2.24	1.10	1.23	1.55	1.73	2.09	2.33	1.21	1.35	1.66	1.85	2.17	2.42	1.32	1.47	1.76	1.96	2.26	2.52	
700	A3 =	0.83	0.62	0.82	0.63	0.80	0.65	0.95	0.71	0.94	0.71	0.92	0.70	1.06	0.72	1.06	0.79	1.04	0.81	1.18	0.88	1.17	0.90	1.16	0.92	$\gamma_F = 1.485$
	B3 =	2.46	2.71	2.49	2.74	2.55	2.81	2.81	3.09	2.84	3.13	2.89	3.19	3.16	3.48	3.18	3.51	3.23	3.56	3.51	3.87	3.53	3.89	3.58	3.94	
	C3 =	2.44	2.69	2.31	2.55	2.05	2.26	2.79	3.08	2.68	2.95	2.46	2.70	3.14	3.46	3.04	3.35	2.84	3.13	3.49	3.85	3.40	3.75	3.22	3.55	
	D3 =	1.12	1.23	1.65	1.81	2.27	2.51	1.24	1.37	1.76	1.94	2.36	2.60	1.37	1.51	1.87	2.07	2.46	2.71	1.50	1.65	1.99	2.20	2.56	2.82	
800	A3 =	0.94	0.74	0.94	0.76	0.92	0.77	1.08	0.84	1.07	0.84	1.06	0.84	1.21	0.86	1.21	0.94	1.19	0.88	1.35	<b>1.05</b>	1.34	<b>1.05</b>	1.33	<b>1.09</b>	$\gamma_F = 1.487$
	B3 =	2.78	3.03	2.82	3.07	2.89	3.15	3.18	3.46	3.21	3.50	3.27	3.57	3.57	3.90	3.60	3.93	3.66	3.99	3.97	<b>4.33</b>	4.00	<b>4.36</b>	4.05	<b>4.41</b>	
	C3 =	2.76	3.01	2.61	2.85	2.32	2.53	3.16	3.44	3.03	3.30	2.78	3.03	3.56	3.88	3.44	3.75	3.22	3.51	3.95	<b>4.31</b>	3.85	<b>4.20</b>	3.65	<b>3.98</b>	
	D3 =	1.27	1.38	1.86	2.03	2.57	2.81	1.41	1.54	1.99	2.17	2.67	2.92	1.55	1.69	2.12	2.31	2.78	3.03	1.69	<b>1.85</b>	2.26	<b>2.46</b>	2.90	<b>3.16</b>	
	H3 =	0.37	1.22	0.40	1.30	0.42	1.37	0.42	1.39	0.45	1.46	0.47	1.54	0.48	1.56	0.50	1.63	0.52	1.71	0.53	1.73	0.55	1.80	0.57	1.88	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven Werten*  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**

**TABELLE 22**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 2 / Windlastzone 2** (Winddruck von oben)

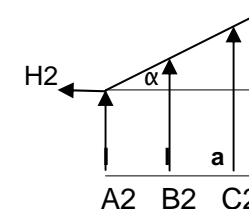


Mee- res- höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50					
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
		10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
< 286	A1 =	0.76	0.65	0.70	0.54	0.58	0.36	0.87	0.74	0.82	0.64	0.71	0.48	0.98	0.84	0.93	0.75	0.84	0.60	1.09	0.94	1.05	0.85	0.96	0.71
	B1 =	0.95	1.08	1.30	1.49	1.72	1.97	1.06	1.21	1.41	1.61	1.81	2.07	1.17	1.34	1.52	1.73	1.91	2.18	1.28	1.47	1.62	1.86	2.00	2.29
400	A1 =	0.91	0.80	0.84	0.68	0.70	0.48	1.04	0.92	0.98	0.81	0.86	0.63	1.18	1.04	1.12	0.93	1.01	0.77	1.31	1.16	1.26	1.06	1.16	0.91
	B1 =	1.13	1.27	1.56	1.75	2.05	2.30	1.26	1.42	1.68	1.89	2.16	2.42	1.40	1.57	1.81	2.03	2.27	2.55	1.53	1.72	1.94	2.17	2.39	2.68
500	A1 =	1.07	0.96	0.99	0.83	0.82	0.61	1.23	1.10	1.16	0.98	1.01	0.78	1.39	1.25	1.32	1.12	1.19	0.95	<b>1.54</b>	<b>1.39</b>	1.48	<b>1.28</b>	1.36	1.12
	B1 =	1.33	1.46	1.83	2.02	2.41	2.66	1.48	1.64	1.98	2.18	2.54	2.80	1.64	1.81	2.12	2.32	2.67	2.95	<b>1.80</b>	<b>1.98</b>	2.28	<b>2.51</b>	2.81	3.10
600	A1 =	1.26	1.15	1.16	1.00	0.97	0.76	1.45	1.32	1.36	1.19	1.19	0.97	1.63	<b>1.49</b>	1.55	1.37	1.40	1.17	<b>1.81</b>	<b>1.74</b>	<b>1.55</b>	1.60	<b>1.36</b>	
	B1 =	1.56	1.69	2.15	2.33	2.83	3.08	1.74	1.89	2.32	2.52	2.98	3.24	1.93	<b>2.09</b>	2.49	2.71	3.13	3.41	<b>2.11</b>	<b>2.67</b>	<b>2.90</b>	3.30	<b>3.59</b>	
700	A1 =	1.48	1.37	1.37	1.21	1.14	0.93	1.70	1.57	1.60	1.42	1.40	1.17	<b>1.91</b>	<b>1.77</b>	<b>1.82</b>	<b>1.64</b>	1.65	1.41					<b>1.89</b>	<b>1.64</b>
	B1 =	1.82	1.96	2.51	2.70	3.31	3.55	2.04	2.19	2.71	2.91	3.48	3.74	<b>2.25</b>	<b>2.42</b>	<b>2.91</b>	<b>3.13</b>	3.66	3.94					<b>3.85</b>	<b>4.14</b>
800	A1 =	1.73	1.61	1.59	1.43	1.33	1.12	<b>1.98</b>	<b>1.85</b>	1.86	1.69	1.63	1.41		<b>2.12</b>		1.92	<b>1.68</b>							
	B1 =	2.12	2.25	2.92	3.11	3.85	4.09	<b>2.37</b>	<b>2.52</b>	3.15	3.35	4.05	4.31		<b>3.39</b>		4.26	<b>4.54</b>							
900	A1 =	2.00	1.88	1.85	1.68	1.55	1.33	<b>2.29</b>	<b>2.16</b>	<b>2.15</b>	<b>1.98</b>	1.89	1.66				<b>2.22</b>	<b>1.99</b>							
	B1 =	2.45	2.58	3.37	3.56	4.44	4.69	<b>2.73</b>	<b>2.89</b>	<b>3.64</b>	<b>3.84</b>	4.68	4.94				<b>4.92</b>	<b>5.20</b>							
	H1 =	0.13	0.43	0.16	0.51	0.18	0.58	0.15	0.49	0.17	0.56	0.20	0.64	0.17	0.54	0.19	0.62	0.21	0.69	0.18	0.60	0.21	0.68	0.23	0.75

alle Werte sind charakteristische Werte. Für die Bemessung:  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand 0.61 m

### TABELLE 23

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m** **2-Feld**  
**Schneelastzone 2 / Windlastzone 2** (Winddruck von oben)



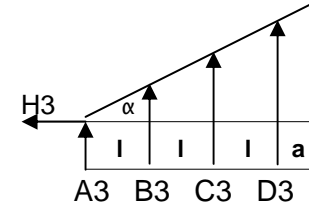
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha =$	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<286	A2 =	0:55	0:34	0:56	0:35	0:58	0:36	0:63	0:39	0:64	0:39	0:66	0:41	0:71	0:43	0:71	0:44	0:73	0:44	0:78	0:48	0:79	0:49	0:81	0:50	$\gamma_F = 1.473$
	B2 =	1:96	2:24	1:87	2:15	1:70	1:95	2:24	2:57	2:17	2:48	2:02	2:31	2:53	2:89	2:46	2:82	2:33	2:66	2:81	3:22	2:75	3:15	2:63	3:01	
	C2 =	0:75	0:86	1:12	1:29	1:57	1:79	0:84	0:96	1:20	1:37	1:62	1:86	0:92	1:05	1:28	1:46	1:69	1:93	1:00	1:15	1:35	1:55	1:75	2:01	
400	A2 =	0:67	0:45	0:68	0:46	0:71	0:48	0:76	0:52	0:77	0:53	0:80	0:54	0:85	0:58	0:86	0:59	0:89	0:61	0:95	0:65	0:96	0:65	0:98	0:67	$\gamma_F = 1.472$
	B2 =	2:34	2:62	2:24	2:51	2:03	2:28	2:68	3:00	2:59	2:90	2:41	2:70	3:02	3:38	2:94	3:29	2:78	3:11	3:35	3:76	3:28	3:68	3:14	3:52	
	C2 =	0:90	1:01	1:34	1:50	1:87	2:10	1:00	1:12	1:43	1:60	1:94	2:17	1:10	1:23	1:52	1:71	2:01	2:26	1:20	1:34	1:62	1:81	2:09	2:35	
500	A2 =	0:79	0:57	0:81	0:59	0:84	0:62	0:90	0:66	0:91	0:67	0:95	0:69	1:01	0:74	1:02	0:74	1:05	0:77	<b>1:13</b>	<b>0:82</b>	1:14	<b>0:83</b>	1:16	<b>0:85</b>	$\gamma_F = 1.477$
	B2 =	2:75	3:03	2:63	2:90	2:39	2:63	3:14	3:47	3:04	3:35	2:83	3:12	3:54	3:91	3:45	3:77	3:26	3:60	<b>3:94</b>	<b>4:34</b>	3:85	<b>4:25</b>	3:69	<b>4:07</b>	
	C2 =	1:05	1:16	1:58	1:74	2:20	2:42	1:17	1:29	1:68	1:85	2:28	2:51	1:30	1:42	1:79	1:95	2:36	2:61	<b>1:41</b>	<b>1:55</b>	1:90	<b>2:09</b>	2:46	<b>2:71</b>	
600	A2 =	0:93	0:72	0:95	0:74	1:00	0:77	1:07	0:82	1:08	0:84	1:12	0:87	1:20	<b>0:92</b>	1:21	<b>0:94</b>	1:25	0:97	<b>1:33</b>		<b>1:34</b>	<b>1:04</b>	<b>1:37</b>	<b>1:06</b>	$\gamma_F = 1.481$
	B2 =	3:22	3:51	3:08	3:35	2:80	3:05	3:69	4:01	3:57	3:88	3:32	3:61	4:15	<b>4:52</b>	4:05	<b>4:40</b>	3:83	4:16	<b>4:62</b>		<b>4:52</b>	<b>4:92</b>	<b>4:32</b>	<b>4:70</b>	
	C2 =	1:24	1:35	1:85	2:01	2:58	2:80	1:37	1:49	1:97	2:14	2:67	2:91	1:51	<b>1:64</b>	2:10	<b>2:28</b>	2:77	3:02	<b>1:65</b>		<b>2:23</b>	<b>2:42</b>	<b>2:88</b>	<b>3:14</b>	
700	A2 =	1:10	0:89	1:12	0:91	1:17	0:95	1:25	1:01	1:27	1:03	1:32	1:07	<b>1:41</b>	<b>1:13</b>	<b>1:43</b>	<b>1:15</b>	1:47	<b>1:19</b>					<b>1:62</b>	$\gamma_F = 1.485$	
	B2 =	3:77	4:05	3:60	3:88	3:28	3:52	4:31	4:64	4:17	4:48	3:88	4:17	<b>4:86</b>	<b>5:22</b>	<b>4:73</b>	<b>5:09</b>	4:47	<b>4:81</b>					<b>5:06</b>		
	C2 =	1:45	1:55	2:16	2:32	3:01	3:24	1:61	1:73	2:30	2:48	3:12	3:36	<b>1:77</b>	<b>1:90</b>	<b>2:45</b>	<b>2:64</b>	3:24	<b>3:49</b>					<b>3:37</b>		
800	A2 =	1:29	1:07	1:31	1:10	1:37	1:15	<b>1:47</b>	<b>1:22</b>	<b>1:49</b>	<b>1:25</b>	1:54	1:29			<b>1:67</b>		<b>1:72</b>	<b>1:44</b>						$\gamma_F = 1.487$	
	B2 =	4:38	4:67	4:19	4:46	3:81	4:06	<b>5:02</b>	<b>5:34</b>	<b>4:85</b>	<b>5:16</b>	4:51	4:81			<b>5:50</b>		<b>5:20</b>	<b>5:54</b>							
	C2 =	1:68	1:79	2:51	2:68	3:50	3:73	<b>1:87</b>	<b>1:99</b>	<b>2:68</b>	<b>2:85</b>	3:63	3:87			<b>2:85</b>		<b>3:77</b>	<b>4:02</b>							
900	A2 =	1:49	1:30	1:52	1:32	1:59	1:36	<b>1:70</b>	<b>1:46</b>	<b>1:73</b>	<b>1:51</b>	<b>1:79</b>	<b>1:94</b>												$\gamma_F = 1.493$	
	B2 =	5:06	5:35	4:84	5:11	4:40	4:65	<b>5:80</b>	<b>6:12</b>	<b>5:60</b>	<b>5:92</b>	<b>5:22</b>	<b>5:51</b>													
	C2 =	1:94	2:05	2:90	3:07	4:05	4:28	<b>2:16</b>	<b>2:28</b>	<b>3:10</b>	<b>3:27</b>	<b>4:20</b>	<b>4:43</b>													
	H2 =	0:25	0:83	0:28	0:90	0:30	0:98	0:29	0:94	0:31	1:01	0:33	1:09	0:32	1:05	0:34	1:13	0:37	1:20	0:36	1:16	0:38	1:24	0:40	1:31	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* Werten  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**  
Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 24 (TEIL 1)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 2 / Windlastzone 2 (Winddruck von oben)**

**3-Feld**



Mee- res- höhe	Spann- weite l = Krag- weite a = Neigung $\alpha$ =	1.05						1.20						1.35						1.50						
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<286	A3 =	0.57	0.36	0.56	0.36	0.55	0.35	0.65	0.41	0.64	0.41	0.63	0.40	0.73	0.46	0.72	0.46	0.71	0.46	0.81	0.51	0.80	0.51	0.79	0.53	$\gamma F = 1,473$
	B3 =	1.74	1.99	1.76	2,02	1.81	2,07	1.99	2.27	2,01	2.30	2,05	2.34	2.23	2.56	2.25	2.58	2.29	2.62	2.48	2.84	2.50	2.86	2.53	2.89	
	C3 =	1.72	1.97	1.63	1.87	1.45	1.66	1.97	2.27	1.89	2,17	1.73	1.99	2,22	2.54	2,15	2.46	2,01	2.30	2.47	2.83	2.41	2.76	2.28	2,61	
	D3 =	0.79	0.91	1.16	1.33	1.61	1.84	0.88	1,01	1.24	1.42	1.67	1.91	0.97	1,11	1.33	1.52	1.74	1.99	1,06	1.21	1.41	1.61	1.81	2,07	
400	A3 =	0.69	0.48	0.68	0.50	0.67	0.52	0.79	0.55	0.78	0.55	0.77	0.54	0.88	0.57	0.88	0.62	0.87	0.61	0.98	0.69	0.98	0.68	0.97	0.69	$\gamma F = 1,480$
	B3 =	2,08	2.33	2,10	2.36	2,16	2.42	2.37	2.66	2.39	2.68	2.44	2.74	2.67	2.99	2.69	3,01	2.73	3,06	2.96	3,32	2.98	3.34	3,02	3.38	
	C3 =	2,06	2.31	1.95	2,19	1.73	1.94	2.36	2.64	2.26	2.53	2,07	2.32	2.65	2.97	2.57	2.88	2.40	2.69	2.95	3,31	2.87	3,22	2.72	3,05	
	D3 =	0.94	1,06	1.39	1.56	1.92	2,15	1,05	1.18	1.48	1.66	1.99	2.24	1.16	1.30	1.58	1.77	2,08	2.33	1.26	1.42	1.68	1.89	2,16	2.42	
500	A3 =	0.82	0.61	0.81	0.61	0.80	0.60	0.94	0.70	0.93	0.70	0.91	0.72	1,05	0.79	1,05	0.78	1,03	0.78	1.17	0.87	1.16	0.87	1.15	0.87	$\gamma F = 1,484$
	B3 =	2.44	2.69	2.47	2.72	2.53	2.79	2.78	3,07	2.81	3,10	2.87	3,16	3,13	3.45	3,16	3.45	3,21	3.54	3.48	3.84	3.50	3.86	3.55	3.91	
	C3 =	2.42	2.67	2.29	2.53	2,03	2.24	2.77	3,05	2.65	2.93	2.43	2.68	3,12	3.44	3,02	3.30	2.82	3,11	3.46	3.82	3.38	3.72	3,20	3.53	
	D3 =	1.11	1.22	1.63	1.80	2.26	2.49	1.23	1.36	1.74	1.92	2.34	2.58	1.36	1.50	1.86	2,03	2.44	2.69	1.48	1.64	1.98	2,18	2.54	2.80	
600	A3 =	0.97	0.77	0.96	0.78	0.95	0.75	1.11	0.87	1.10	0.87	1.09	0.86	1.25	<b>0.98</b>	1.24	0.88	1.23	0.97	1.39	<b>1.09</b>	1.38	<b>1.09</b>	<b>1.37</b>	<b>1.08</b>	$\gamma F = 1,488$
	B3 =	2.86	3,11	2.89	3,15	2.97	3,23	3.27	3.55	3.30	3.59	3.36	3.66	3.67	<b>4,00</b>	3.70	4,03	3.76	4,09	4,08	<b>4.44</b>	4,11	<b>4.47</b>	<b>4,16</b>	<b>4.53</b>	
	C3 =	2.84	3,09	2.69	2.92	2.39	2.60	3.25	3.53	3,11	3.39	2.85	3,10	3.66	<b>3.98</b>	3.54	3.85	3.31	3.60	4,06	<b>4.42</b>	3.96	<b>4.31</b>	<b>3.75</b>	<b>4,08</b>	
	D3 =	1.30	1.42	1.91	2,08	2.65	3.88	1.45	1.57	2,05	2.23	2.75	2.99	1.59	<b>1.73</b>	2.18	2.37	2.86	3,11	1.74	<b>1.89</b>	2.32	<b>2.52</b>	<b>2.98</b>	<b>3.24</b>	
700	A3 =	1.15	0.94	1.14	0.96	1.12	0.92	1.31	1,07	1.30	1.07	1.29	1.03	1.48	<b>1.21</b>	1.47	<b>1.20</b>	1.45	<b>1.20</b>	<b>1.64</b>	<b>1.34</b>	<b>1.63</b>	<b>1.34</b>	<b>1.62</b>	<b>1.33</b>	$\gamma F = 1,490$
	B3 =	3.34	3.59	3.38	3.64	3.47	3.73	3.82	4,11	3.86	4,15	3.93	4,23	4.30	<b>4.62</b>	4.33	<b>4.65</b>	4.40	<b>4.73</b>	<b>4.77</b>	<b>5,13</b>	<b>4.80</b>	<b>5,16</b>	<b>4.86</b>	<b>5,23</b>	
	C3 =	3.32	3.56	3,14	3.38	2.79	3,00	3.79	4,08	3.64	3.92	3.33	3.59	4.27	<b>4.60</b>	4,14	<b>4.45</b>	3.86	<b>4,16</b>	<b>4.75</b>	<b>5,11</b>	<b>4.63</b>	<b>4.98</b>	<b>4.38</b>	<b>4.71</b>	
	D3 =	1.52	1.64	2.24	2.41	3,09	3.33	1.69	1.82	2.39	2.57	3.21	3.45	1.86	<b>2,00</b>	2.55	<b>2.74</b>	3,34	<b>3,60</b>	<b>2,04</b>	<b>2.19</b>	<b>2.71</b>	<b>2.91</b>	<b>3.48</b>	<b>3.75</b>	
800	A3 =	1.35	1.14	1.33	1.19	1.31	1.12	1.54	1.30	1.53	1.30	1.51	1.28	<b>1.73</b>	<b>1.46</b>	<b>1.72</b>	<b>1.46</b>	<b>1.70</b>	<b>1.45</b>							$\gamma F = 1,492$
	B3 =	3.89	4,14	3.94	4,19	4,04	4.30	4.44	4.73	4.49	4.78	4.57	4.87	<b>5,00</b>	<b>5.32</b>	<b>5,03</b>	<b>5.36</b>	<b>5,11</b>	<b>5.44</b>							
	C3 =	3.86	4,11	3.65	3.89	3.25	3.45	4.41	4.70	4.24	4.51	3.88	4,13	<b>4.97</b>	<b>5.29</b>	<b>4.81</b>	<b>5.12</b>	<b>4,49</b>	<b>4.79</b>							
	D3 =	1.77	1.88	2.60	2.77	3.60	3.83	1.97	2,09	2.78	2.96	3.74	3.98	<b>2.17</b>	<b>2.31</b>	<b>2.97</b>	<b>3.16</b>	<b>3.89</b>	<b>4,14</b>							

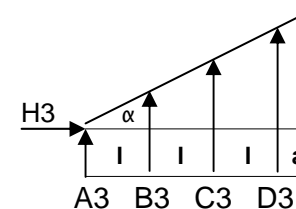


## TABELLE 24 (TEIL 2)

BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m

Schneelastzone 2 / Windlastzone 2 (Winddruck von oben)

3-Feld

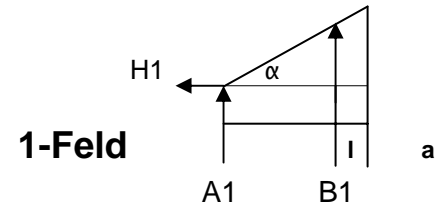


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<b>900</b>	<b>A3 =</b>	1.57	1.36	1.55	1.38	1.53	1.33	1.79	1.40	1.78	<b>1.53</b>	<b>1.76</b>	<b>1.53</b>	<b>2,01</b>	<b>2,00</b>	<b>1.92</b>	<b>1.60</b>							<i><math>\gamma F = 1,493</math></i>		
	<b>B3 =</b>	4.49	4.74	4.55	4.80	4.67	4.93	5,13	5.42	5,18	<b>5.47</b>	<b>5.29</b>	<b>5.58</b>	<b>5.77</b>	<b>5.82</b>	<b>5.67</b>	<b>5.94</b>									
	<b>C3 =</b>	4.46	4.71	4.22	4.46	3.75	3.96	5,10	5.39	4.89	<b>5,17</b>	<b>4.48</b>	<b>4.73</b>	<b>5.74</b>	<b>5.56</b>	<b>4.99</b>	<b>5.22</b>									
	<b>D3 =</b>	2,04	2.16	2.89	3.18	4,16	4.39	2.27	2.40	3.21	<b>3.39</b>	<b>4.32</b>	<b>4.56</b>	<b>2.50</b>	<b>3.43</b>	<b>4.32</b>	<b>4.51</b>									
	<b>H3 =</b>	0.37	1,22	0.40	1.30	0.42	1.37	0.42	1.39	0.45	1.46	0.47	1.54	0.48	1.56	0.50	1.63	0.52	1.71	0.53	1.73	0.55	1.80	0.57	1.88	

alle Werte sind charakteristische Werte. Für Bemessung der nicht *kursiven* Werte  $\gamma F = 1.35$ . Eingerahmte Werte nur für Rahmenabstand **0.61 m**  
Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 25**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m**  
**Schneelastzone 3 / Windlastzone 2** (Winddruck von oben)



Meeres- höhe	Spann- weite l =	1.05						1.20						1.35						1.50					
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
	Neigung alpha =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
< 256	A1 =	0.86	0.75	0.79	0.63	0.66	0.44	0.99	0.86	0.93	0.76	0.81	0.58	1.11	0.98	1.06	0.87	0.95	0.72	1.24	1.09	1.18	0.99	1.10	0.85
	B1 =	1.07	1.21	1.48	1.67	1.95	2.20	1.20	1.35	1.60	1.80	2.05	2.31	1.33	1.50	1.72	1.94	2.16	2.43	1.45	1.64	1.84	2.07	2.27	2.56
400	A1 =	1.15	1.04	1.06	0.90	0.88	0.66	1.31	1.19	1.23	1.06	1.08	0.85	1.48	1.34	1.41	1.22	1.27	1.03	<b>1,64</b>	<b>1,49</b>	<b>1,58</b>	<b>1,38</b>	1.46	1.21
	B1 =	1.41	1,56	1.95	2.40	2.57	2.82	1,58	1.73	2.11	2.31	2.70	2,97	1.75	1.92	2.26	2.48	2.85	3.12	<b>1,92</b>	<b>2,10</b>	<b>2,43</b>	<b>2,66</b>	2.99	3.28
500	A1 =	1.39	1.28	1.29	1.13	1.07	0.86	1.60	1.47	1.50	1.33	1.32	1.09	<b>1,80</b>	<b>1,66</b>	1,71	<b>1,53</b>	1.55	1.31	<b>1,92</b>		<b>1,77</b>	<b>1,53</b>		
	B1 =	1,71	1.85	2.36	2.55	3.11	3.36	1.92	2.07	2.55	2.76	3.28	3.54	<b>2,12</b>	<b>2,29</b>	2.74	<b>2,96</b>	3.45	3.73	<b>2,94</b>		<b>3,63</b>	<b>3,92</b>		
600	A1 =	1.68	1.57	1.55	1.39	1.30	1.08	<b>1,93</b>	<b>1,80</b>	1,81	1.64	1.59	1.36	<b>2,17</b>		<b>2,07</b>	<b>1,89</b>	1,87	<b>1,64</b>					<b>2,15</b>	
	B1 =	2.06	2.20	2.84	3.03	3.75	4.00	<b>2,31</b>	<b>2,46</b>	3.07	3.28	3.95	4.21	<b>2,55</b>		<b>3,31</b>	<b>3,52</b>	4.16	<b>4,43</b>					<b>4,37</b>	
700	A1 =	2.01	1.90	1,86	1.70	1.56	1.34	<b>2,31</b>	<b>2,18</b>	<b>2,17</b>	<b>2,00</b>	1,91	1.68					<b>2,24</b>	<b>2,01</b>						
	B1 =	2.47	2.60	3.40	3.59	4.48	4.73	<b>2,76</b>	<b>2,91</b>	<b>3,67</b>	<b>3,87</b>	4.71	4.98					<b>4,96</b>	<b>5,24</b>						
800	A1 =	2.39	2.27	2.21	2.05	1.85	1.63			<b>2,58</b>		<b>2,26</b>	<b>2,04</b>												
	B1 =	2.92	3.05	4.02	4.21	5.30	5.55			<b>4,34</b>		<b>5,58</b>	<b>5,84</b>												
900	A1 =	2.40	2.69	2.59	2.43	2.17	1.96					<b>2,66</b>	<b>2,43</b>												
	B1 =	2.90	3.56	4.71	4.90	6.21	6.46					<b>6,54</b>	<b>6,80</b>												
	H1 =	0.13	0.43	0.16	0.51	0.18	0.58	0.15	0.49	0.17	0.56	0.20	0.64	0.17	0.54	0.19	0.62	0.21	0.69	0.18	0.60	0.21	0.68	0.23	0.75

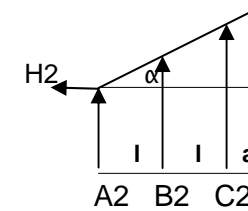
alle Werte sind charakteristische Werte. Für die Bemessung:  $\gamma_F = 1.35$ . Fette Werte nur für Rahmenabstand 0.61 m  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen

**TABELLE 26**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**

**Schneelastzone 3 / Windlastzone 2 (Winddruck von oben)**

**2-Feld**

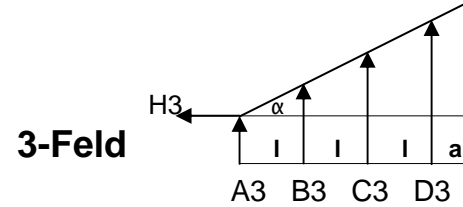


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung α =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<256	A2 =	0:63	0:42	0:64	0:43	0:67	0:45	0:72	0:48	0:73	0:49	0:75	0:50	0:81	0:54	0:82	0:54	0:84	0:56	0:90	0:59	0:90	0:60	0:92	0:61	$\gamma_F = 1.478$
	B2 =	2:22	2:50	2:12	2:39	1:93	2:18	2:54	2:87	2:46	2:77	2:29	2:58	2:85	3:23	2:79	3:14	2:64	2:97	3:18	3:59	3:11	3:51	2:98	3:36	
	C2 =	0:85	0:96	1:27	1:44	1:78	2:00	0:95	1:07	1:36	1:53	1:84	2:07	1:04	1:17	1:44	1:63	1:91	2:15	1:14	1:28	1:53	1:73	1:99	2:24	
400	A2 =	0:84	0:63	0:86	0:65	0:90	0:68	0:96	0:72	0:98	0:73	1:01	0:76	1:08	0:81	1:10	0:82	1:13	0:85	<b>1:20</b>	<b>0:90</b>	<b>1:21</b>	<b>0:91</b>	1:24	<b>0:93</b>	$\gamma_F = 1,486$
	B2 =	2:93	3:22	2:80	3:07	2:55	2:79	3:35	3:68	3:24	3:55	3:02	3:31	3:78	4:14	3:68	4:03	3:48	3:81	<b>4:20</b>	<b>4:60</b>	<b>4:11</b>	<b>4:51</b>	3:93	<b>4:31</b>	
	C2 =	1:12	1:24	1:68	1:84	2:34	2:57	1:25	1:37	1:79	1:96	2:43	2:66	1:37	1:51	1:91	2:09	2:52	2:76	<b>1:50</b>	<b>1:64</b>	<b>2:02</b>	<b>2:22</b>	2:62	<b>2:87</b>	
500	A2 =	1:03	0:82	1:05	0:84	1:10	0:88	1:18	0:93	1:20	0:95	1:24	0:99	<b>1:33</b>	<b>1:05</b>	<b>1:34</b>	<b>1:07</b>	1:38	<b>1:10</b>			<b>1:49</b>		<b>1:52</b>	<b>1:21</b>	$\gamma_F = 1.489$
	B2 =	3:55	3:83	3:39	3:67	3:09	3:33	4:06	4:39	3:93	4:24	3:66	3:95	<b>4:58</b>	<b>4:94</b>	<b>4:45</b>	<b>4:81</b>	4:21	<b>4:55</b>			<b>4:98</b>		<b>4:76</b>	<b>5:14</b>	
	C2 =	1:36	1:47	2:04	2:20	2:84	3:07	1:51	1:63	2:17	2:34	2:94	3:18	<b>1:66</b>	<b>1:80</b>	<b>2:31</b>	<b>2:49</b>	3:05	<b>3:30</b>			<b>2:45</b>		<b>3:18</b>	<b>3:43</b>	
600	A2 =	1:25	1:04	1:28	1:06	1:34	1:11	<b>1:43</b>	<b>1:19</b>	1:45	<b>1:21</b>	1:50	<b>1:25</b>	<b>1:61</b>		<b>1:63</b>		<b>1:67</b>	<b>1:39</b>							$\gamma_F = 1.491$
	B2 =	4:27	4:56	4:09	4:36	3:72	3:96	<b>4:89</b>	<b>5:22</b>	4:73	<b>5:04</b>	4:40	<b>4:69</b>	<b>5:51</b>		<b>5:36</b>		<b>5:07</b>	<b>5:41</b>							
	C2 =	1:64	1:75	2:45	2:61	3:42	3:65	<b>1:82</b>	<b>1:94</b>	2:61	<b>2:79</b>	3:54	<b>3:78</b>	<b>2:00</b>		<b>2:78</b>		<b>3:68</b>	<b>3:92</b>							
700	A2 =	1:50	1:29	1:54	1:32	1:61	1:38	<b>1:72</b>	<b>1:47</b>	<b>1:75</b>	<b>1:50</b>	<b>1:81</b>	<b>1:56</b>													$\gamma_F = 1.493$
	B2 =	5:11	5:39	4:88	5:15	4:44	4:68	<b>5:84</b>	<b>6:17</b>	<b>5:65</b>	<b>5:96</b>	<b>5:26</b>	<b>5:55</b>													
	C2 =	1:96	2:07	2:93	3:09	4:08	4:31	<b>2:18</b>	<b>2:30</b>	<b>3:12</b>	<b>3:29</b>	<b>4:23</b>	<b>4:46</b>													
800	A2 =	1:79	1:57	1:83	1:61	1:91	1:69			<b>2:08</b>		<b>2:15</b>	<b>1:90</b>													$\gamma_F = 1.494$
	B2 =	6:04	6:32	5:78	6:05	5:25	5:50			<b>6:68</b>		<b>6:22</b>	<b>6:51</b>													
	C2 =	2:32	2:43	3:46	3:63	4:83	5:06			<b>3:69</b>		<b>5:00</b>	<b>5:24</b>													
900	A2 =	1:82	1:89	2:15	1:94	2:25	2:03																			$\gamma_F = 1.495$
	B2 =	6:01	7:37	6:77	7:04	6:15	6:40																			
	C2 =	2:31	2:83	4:06	4:22	5:66	5:89																			
	H2 =	0:25	0:83	0:28	0:90	0:30	0:98	0:29	0:94	0:31	1:01	0:33	1:09	0:32	1:05	0:34	1:13	0:37	1:20	0:36	1:16	0:38	1:24	0:40	1:31	

alle Werte sind charakteristische Werte. Für die Bemessung bei nicht *kursiven* Werten  $\gamma_F = 1.35$ . **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 27 (TEIL 1)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 3 / Windlastzone 2 (Winddruck von oben)**

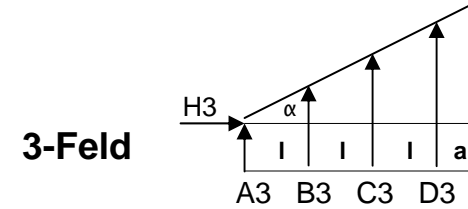


Mee- res- höhe	Spann- weite l = Krag- eitew a = Neigung α =	1.05						1.20						1.35						1.50						
		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
		10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<256	A3 =	0.65	0.34	0.64	0.44	0.63	0.43	0.74	0.51	0.73	0.50	0.72	0.50	0.84	0.57	0.83	0.57	0.82	0.56	0.93	0.63	0.92	0.63	0.91	0.63	<i>γF</i> = 1,478
	B3 =	1.97	2.22	1.99	2,25	2.05	2,31	2.25	2.54	2,27	2.56	2,32	2.61	2.53	2.85	2.55	2.88	2.59	2.92	2.81	3.17	2.83	3.19	2.87	3.23	
	C3 =	1.95	2.20	1.85	2.09	1.64	1.85	2.24	2.52	2.15	2,42	1.97	2.22	2,52	2.84	2,44	2.75	2,28	2.57	2.80	3.16	2.73	3.08	2.58	2,91	
	D3 =	0.90	1.01	1.32	1.49	1.82	2.06	1.00	1,12	1.41	1.59	1.89	2.13	1.10	1,24	1.50	1.69	1.97	2.22	1,20	1.35	1.60	1.80	2.05	2,32	
400	A3 =	0.88	0.67	0.87	0.67	0.85	0.66	1.00	0.77	0.99	0.76	0.98	0.76	1.13	0.86	1.12	0.86	1.11	0.85	1.25	0.96	1.25	0.96	1.23	0.95	<i>γF</i> = 1,486
	B3 =	2,60	2.86	2,63	2.89	2,70	2.96	2.97	3.25	3.00	3.29	3.06	3.35	3.34	3.66	3.36	3.69	3.42	3,75	3.71	4.07	3.73	4.09	3,78	4.15	
	C3 =	2,58	2.83	2.44	2,68	2.17	2.38	2.95	3.24	2.83	3.10	2,59	2.84	3.32	3.64	3.22	3.53	3.00	3.29	3.69	4.05	3.60	3,95	3.41	3,74	
	D3 =	1.18	1,30	1.74	1.91	2.40	2,64	1,32	1.44	1.86	2.04	2.50	2.74	1.45	1.59	1.98	2.17	2,60	2.85	1.58	1.74	2.11	2.31	2,71	2.97	
500	A3 =	1.08	0.87	1.07	0.87	1.05	0.85	1.23	0.99	1.22	0.99	1.21	0.98	1,39	1.12	1,38	1.12	1,36	1.11	1.54	1.24	1.53	1.24	1.52	1.23	<i>γF</i> = 1,489
	B3 =	3.15	3.40	3.19	3.44	3.27	3.53	3.60	3.88	3.63	3,92	3.70	4.00	4.05	4.37	4.08	4.40	4.14	4.47	4.49	4.85	4.52	4.88	4.58	4.95	
	C3 =	3.12	3.37	2.96	3.19	2.63	2.84	3.57	3,86	3.43	3.70	3.14	3.39	4.03	4.35	3,90	4.21	3.64	3,93	4.48	4.83	4.36	4.71	4.13	4.46	
	D3 =	1.43	1.55	2.11	2.28	2.91	3.15	1.59	1.72	2.25	2.43	3.03	3.27	1.76	1.90	2.40	2,59	3.15	3.40	1.92	2.07	2.55	2,76	3.28	3.54	
600	A3 =	1.31	1.10	1.30	1.10	1.24	1.08	1.50	1.26	1.47	1.26	1.47	1.24	1.69	1.42	1.68	1.41	1.66	1.40	1.87						<i>γF</i> = 1,491
	B3 =	3.79	4.04	3.84	4.09	3.94	4.20	4.33	4.62	4.37	4.66	4.46	4.76	4.87	5.19	4.91	5.24	4.99	5.32	5.41						
	C3 =	3.76	4.01	3.56	3.80	3.17	3.37	4.30	4.59	4.13	4.40	3.78	4.03	4.85	5.17	4.69	5.00	4.38	4.67	5.39						
	D3 =	1.73	1.84	2.54	2,71	3.51	3.74	1.92	2.05	2,71	2.89	3.64	3.89	2.11	2.25	2.89	3.08	3.79	4.04	2.31						
700	A3 =	1.58	1.37	1.57	1.36	1.54	1.35	1.80	1,57	1.79	1.56	1.77	1.55	2.03		2.02										<i>γF</i> = 1,493
	B3 =	4.53	4.78	4.58	4.84	4.70	4.96	5.17	5.46	5.22	5.51	5.33	5.62	5.82		5.86										
	C3 =	4.49	4.74	4.26	4.49	3.78	3,99	5.14	5.43	4.93	5.21	4.52	4.77	5.79		5.61										
	D3 =	2.06	2.17	3.03	3.20	4.19	4.42	2.29	2.84	3.24	3.42	4.35	4.59	2.52		3.45										
800	A3 =	1.88	1.67	1.87	1.66	1.84	1.64	2.15	1.91	2.13	1.90	2.11	1.89													<i>γF</i> = 1,494
	B3 =	5.36	5.61	5.43	5.68	5.56	5.83	6.12	6.41	6.18	6.47	6.30	6.60													
	C3 =	5.31	5.56	5.03	5.27	4.47	4.68	6.08	6.37	5.84	6.11	5.35	5.60													
	D3 =	2.44	2.55	3.59	3.76	4.96	5.19	2.71	2,84	3.83	4.01	5.15	5.39													

alle Werte sind charakteristische Werte. Für Bemessung der nicht *kursiven* Werte *γF* = 1.35. **Fette Werte** nur für Rahmenabstand 0.61 m  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 27 (TEIL 2)**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**  
**Schneelastzone 3 / Windlastzone 2 (Winddruck von oben)**



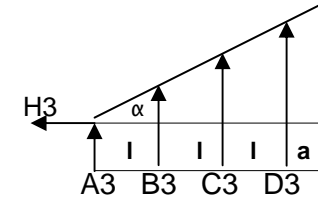
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50						
	Krag- eitew a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		
	Neigung $\alpha$ =	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	10	30	
<b>900</b>	<b>A3 =</b>	1.93	2.01	2.20	1.99	2.17	1.97																			<i>yF</i> = 1,495
	<b>B3 =</b>	5.33	6.53	6.36	6.62	6.52	6.79																			
	<b>C3 =</b>	5.29	6.48	5.90	6.14	5.24	5.45																			
	<b>D3 =</b>	2,42	2.97	4.20	4.37	5.81	6.05																			
	<b>H3 =</b>	0.37	1,22	0.40	1.30	0.42	1.37	0.42	1.39	0.45	1.46	0.47	1.54	0.48	1.56	0.50	1.63	0.52	1.71	0.53	1.73	0.55	1.80	0.57	1.88	

alle Werte sind charakteristische Werte. Für Bemessung der nicht *kursiven* Werte **yF = 1.35**. **Fette Werte** nur für Rahmenabstand **0.61 m**  
 Für Werte über 5.44 KN/m ist die Stütze mit **2 M 8/8.8** anzuschließen.

**TABELLE 28**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m**

**3-Feld**

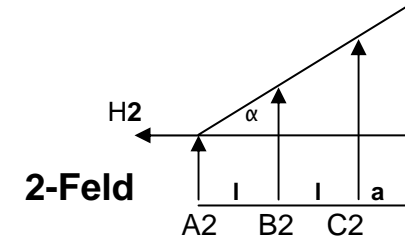


Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50							
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50			
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°		
<b>Schneelastzone 1 / Windlastzone 3 (Winddruck von oben)</b>																											
<400	A3 =	0.55	0.29	0.54	0.29	0.53	0.29	0.63	0.33	0.62	0.33	0.61	0.33	0.71	0.38	0.70	0.37	0.69	0.37	0.78	0.42	0.78	0.42	0.77	0.41	$\gamma F = 1.466$	
	B3 =	1.73	2.04	1.39	2.06	1.80	2.11	1.98	2.33	2.00	2.35	2.04	2.39	2.23	2.62	2.24	2.64	2.28	2.68	2.47	2.91	2.49	2.92	2.52	2.96		
	C3 =	1.72	2.02	1.29	1.91	1.45	1.70	1.97	2.31	1.89	2.22	1.73	2.03	2.21	2.60	2.14	2.52	2.00	2.35	2.46	2.89	2.40	2.82	2.27	2.67		
	D3 =	0.79	0.93	0.93	1.36	1.60	1.88	0.88	1.03	1.24	1.46	1.67	1.96	0.97	1.14	1.32	1.55	1.73	2.04	1.06	1.24	1.40	1.65	1.81	2.12		
<b>Schneelastzone 2 / Windlastzone 3 (Winddruck von oben)</b>																											
<286	A3 =	0.62	0.36	0.51	0.36	0.59	0.35	0.70	0.41	0.70	0.41	0.68	0.40	0.79	0.46	0.78	0.46	0.77	0.46	0.88	0.51	0.87	0.51	0.86	0.51	$\gamma F = 1.473$	
	B3 =	1.92	2.22	1.75	2.25	1.99	2.31	2.19	2.54	2.21	2.56	2.26	2.61	2.46	2.85	2.48	2.88	2.52	2.92	2.74	3.17	2.75	3.19	2.79	3.23		
	C3 =	1.90	2.20	1.63	2.09	1.60	1.85	2.18	2.52	2.09	2.42	1.91	2.22	2.45	2.84	2.37	2.75	2.22	2.57	2.73	3.16	2.66	3.08	2.51	2.91		
	D3 =	0.87	1.01	1.16	1.49	1.77	2.06	0.97	1.12	1.37	1.59	1.84	2.13	1.07	1.24	1.46	1.69	1.92	2.22	1.17	1.35	1.56	1.80	2.00	2.32		
<b>Schneelastzone 3 / Windlastzone 3 (Winddruck von oben)</b>																											
<256	A3 =	0.70	0.44	0.61	0.44	0.68	0.43	0.80	0.51	0.79	0.50	0.78	0.50	0.90	0.57	0.89	0.57	0.88	0.56	1.00	0.63	0.99	0.63	0.98	0.63	$\gamma F = 1.478$	
	B3 =	2.15	2.45	1.94	2.48	2.23	2.55	2.45	2.80	2.48	2.83	2.53	2.88	2.76	3.15	2.78	3.18	2.83	3.23	3.07	3.50	3.09	3.52	3.13	3.57		
	C3 =	2.13	2.43	1.80	2.30	1.79	2.05	2.44	2.78	2.34	2.67	2.14	2.45	2.75	3.14	2.66	3.04	2.48	2.84	3.05	3.49	2.98	3.40	2.82	3.22		
	D3 =	0.98	1.12	1.28	1.64	1.99	2.27	1.09	1.24	1.54	1.75	2.07	2.36	1.20	1.37	1.64	1.87	2.15	2.45	1.31	1.49	1.74	1.99	2.24	2.56		
<b>H3 = 0.46 1.50 0.49 1.59 0.52 1.69 0.52 1.71 0.55 1.80 0.58 1.89 0.59 1.92 0.61 2.01 0.64 2.10 0.65 2.13 0.68 2.22 0.71 2.31 für Windlastzone 3</b>																											
<b>Schneelastzone 1 / Windlastzone 4 (Winddruck von oben)</b>																											
<400	A3 =	0.60	0.29	0.59	0.29	0.57	0.29	0.68	0.33	0.67	0.33	0.66	0.33	0.77	0.38	0.76	0.37	0.75	0.37	0.86	0.42	0.85	0.42	0.83	0.41	$\gamma F = 1.466$	
	B3 =	1.91	2.27	1.93	2.30	1.99	2.35	2.18	2.59	2.31	2.62	2.25	2.67	2.46	2.91	2.47	2.94	2.51	2.98	2.73	3.24	2.75	3.26	2.78	3.30		
	C3 =	1.90	2.25	1.80	2.13	1.60	1.89	2.17	2.57	2.08	2.47	1.91	2.26	2.44	2.90	2.37	2.81	2.21	2.62	2.72	3.22	2.65	3.14	2.51	2.97		
	D3 =	0.87	1.03	1.28	1.52	1.77	2.10	0.97	1.15	1.37	1.62	1.84	2.18	1.07	1.26	1.46	1.73	1.91	2.27	1.16	1.38	1.55	1.84	1.99	2.36		
<b>Schneelastzone 2 / Windlastzone 4 (Winddruck von oben)</b>																											
<286	A3 =	0.67	0.36	0.66	0.36	0.64	0.35	0.76	0.41	0.75	0.41	0.74	0.40	0.86	0.46	0.85	0.46	0.83	0.46	0.95	0.51	0.94	0.51	0.93	0.51	$\gamma F = 1.473$	
	B3 =	2.10	2.45	2.12	2.48	2.18	2.55	2.40	2.80	2.42	2.83	2.47	2.88	2.69	3.15	2.71	3.18	2.76	3.23	2.99	3.50	3.01	3.52	3.05	3.57		
	C3 =	2.08	2.43	1.97	2.30	1.75	2.05	2.38	2.78	2.28	2.67	2.09	2.45	2.68	3.14	2.59	3.04	2.42	2.84	2.98	3.49	2.90	3.40	2.75	3.22		
	D3 =	0.95	1.12	1.40	1.64	1.94	2.27	1.06	1.24	1.50	1.75	2.01	2.36	1.17	1.37	1.60	1.87	2.10	2.45	1.28	1.49	1.70	1.99	2.18	2.56		
<b>H3 = 0.54 1.78 0.58 1.89 0.61 2.00 0.62 2.03 0.65 2.14 0.69 2.35 0.70 2.28 0.73 2.39 0.76 2.50 0.77 2.52 0.80 2.63 0.84 2.74 für Windlastzone 4</b>																											

alle Werte sind charakteristische Werte. Für die Bemessung der nicht kursiven werte  $\gamma F = 1.35$

**TABELLE 29**

**BELASTUNG DER DACHPFETTEN DURCH DIE PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**



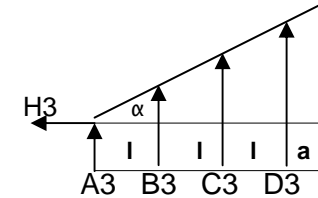
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50									
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50					
	Neigung α =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°				
<b>Schneelastzone 1 / Windlastzone 3</b> (Winddruck von oben)																													
<400	A2 =	0.54	0.27	0.55	0.28	0.57	0.29	0.61	0.31	0.62	0.32	0.64	0.33	0.69	0.35	0.70	0.36	0.71	0.37	0.77	0.39	0.77	0.40	0.79	0.40	<i>yF</i> = 1.466			
	B2 =	1.95	2.30	1.87	2.19	1.70	1.99	2.24	2.63	2.16	2.54	2.01	2.36	2.52	2.96	2.45	2.88	2.32	2.72	2.80	3.29	2.74	3.22	2.62	3.08				
	C2 =	0.75	0.88	1.12	1.32	1.56	1.84	0.83	0.98	1.19	1.40	1.62	1.90	0.92	1.08	1.27	1.49	1.68	1.98	1.00	1.17	1.35	1.58	1.75	2.05				
<b>Schneelastzone 2 / Windlastzone 3</b> (Winddruck von oben)																													
<286	A2 =	0.60	0.34	0.61	0.35	0.64	0.36	0.69	0.39	0.70	0.39	0.72	0.41	0.77	0.43	0.78	0.44	0.80	0.45	0.86	0.48	0.86	0.49	0.88	0.50	<i>yF</i> = 1.473			
	B2 =	2.16	2.50	2.07	2.39	1.88	2.18	2.47	2.87	2.39	2.77	2.23	2.58	2.79	3.23	2.71	3.14	2.57	2.97	3.10	3.59	3.03	3.51	2.90	3.36				
	C2 =	0.83	0.96	1.24	1.44	1.73	2.00	0.92	1.07	1.32	1.53	1.79	2.07	1.01	1.17	1.41	1.63	1.86	2.15	1.11	1.28	1.49	1.73	1.93	2.24				
<b>Schneelastzone 3 / Windlastzone 3</b> (Winddruck von oben)																													
<256	A2 =	0.68	0.42	0.69	0.43	0.72	0.45	0.78	0.48	0.79	0.49	0.81	0.50	0.87	0.54	0.88	0.54	0.90	0.56	0.97	0.59	0.98	0.60	1.00	0.62	<i>yF</i> = 1.478			
	B2 =	2.42	2.76	2.32	2.64	2.11	2.40	2.77	3.16	2.68	3.06	2.50	2.85	3.12	3.56	3.04	3.47	2.88	3.28	3.47	3.96	3.40	3.88	3.25	3.71				
	C2 =	0.93	1.06	1.39	1.59	1.94	2.21	1.03	1.18	1.48	1.69	2.01	2.29	1.14	1.30	1.58	1.80	2.08	2.38	1.24	1.41	1.67	1.91	2.17	2.47				
	H2 =	0.31	1.02	0.34	1.11	0.37	1.20	0.35	1.15	0.38	1.25	0.41	1.34	0.39	1.29	0.42	1.39	0.45	1.48	0.44	1.43	0.47	1.52	0.49	1.62	für Windlastzone 3			
<b>Schneelastzone 1 / Windlastzone 4</b> (Winddruck von oben)																													
<400	A2 =	0.59	0.27	0.60	0.28	0.62	0.29	0.67	0.31	0.68	0.32	0.70	0.33	0.76	0.35	0.76	0.36	0.78	0.37	0.84	0.39	0.85	0.40	0.86	0.40	<i>yF</i> = 1.466			
	B2 =	2.15	2.56	2.06	2.44	1.87	2.22	2.47	2.93	2.38	2.83	2.22	2.63	2.78	3.29	2.70	3.21	2.56	3.03	3.09	3.66	3.02	3.59	2.89	3.43				
	C2 =	0.83	0.98	1.24	1.47	1.72	2.04	0.92	1.09	1.32	1.56	1.79	2.12	1.01	1.20	1.40	1.66	1.85	2.20	1.10	1.31	1.49	1.77	1.93	2.29				
<b>Schneelastzone 2 / Windlastzone 4</b> (Winddruck von oben)																													
<286	A2 =	0.65	0.34	0.66	0.35	0.69	0.36	0.74	0.39	0.75	0.39	0.78	0.41	0.84	0.43	0.85	0.44	0.87	0.45	0.93	0.48	0.94	0.49	0.95	0.50	<i>yF</i> = 1.473			
	B2 =	2.36	2.76	2.26	2.64	2.05	2.40	2.70	3.16	2.61	3.06	2.43	2.85	3.05	3.56	2.97	3.47	2.81	3.28	3.39	3.96	3.31	3.88	3.17	3.71				
	C2 =	0.91	1.06	1.36	1.59	1.89	2.21	1.01	1.18	1.45	1.69	1.96	2.29	1.11	1.30	1.54	1.80	2.03	2.38	1.21	1.41	1.63	1.91	2.11	2.47				
	H3 =	0.37	1.21	0.40	1.32	0.44	1.43	0.42	1.37	0.45	1.48	0.49	1.59	0.47	1.54	0.50	1.65	0.54	1.76	0.52	1.70	0.55	1.81	0.59	1.92	für Windlastzone 4			

alle Werte sind charakteristische Werte. Für die Bemessung der nicht *kursiven* werte **yF = 1.35**, Eingerahmte Werte nur für Rahmenabstand **0.61 m**

### TABELLE 30

BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m

3-Feld



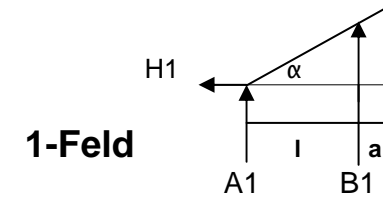
Mee- res- höhe	Spann- weite l =	1.05						1.20						1.35						1.50							
	Krag- weite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50			
	Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°		
<b>Schneelastzone 1 / Windlastzone 3 (Winddruck von oben)</b>																											
<400	A3 =	0.55	0.29	0.54	0.29	0.53	0.29	0.63	0.33	0.62	0.33	0.61	0.33	0.71	0.38	0.70	0.37	0.69	0.37	0.78	0.42	0.78	0.42	0.77	0.41	$\gamma F = 1.466$	
	B3 =	1.73	2.04	1.39	2.06	1.80	2.11	1.98	2.33	2.00	2.35	2.04	2.39	2.23	2.62	2.24	2.64	2.28	2.68	2.47	2.91	2.49	2.92	2.52	2.96		
	C3 =	1.72	2.02	1.29	1.91	1.45	1.70	1.97	2.31	1.89	2.22	1.73	2.03	2.21	2.60	2.14	2.52	2.00	2.35	2.46	2.89	2.40	2.82	2.27	2.67		
	D3 =	0.79	0.93	0.93	1.36	1.60	1.88	0.88	1.03	1.24	1.46	1.67	1.96	0.97	1.14	1.32	1.55	1.73	2.04	1.06	1.24	1.40	1.65	1.81	2.12		
<b>Schneelastzone 2 / Windlastzone 3 (Winddruck von oben)</b>																											
<286	A3 =	0.62	0.36	0.51	0.36	0.59	0.35	0.70	0.41	0.70	0.41	0.68	0.40	0.79	0.46	0.78	0.46	0.77	0.46	0.88	0.51	0.87	0.51	0.86	0.51	$\gamma F = 1.473$	
	B3 =	1.92	2.22	1.75	2.25	1.99	2.31	2.19	2.54	2.21	2.56	2.26	2.61	2.46	2.85	2.48	2.88	2.52	2.92	2.74	3.17	2.75	3.19	2.79	3.23		
	C3 =	1.90	2.20	1.63	2.09	1.60	1.85	2.18	2.52	2.09	2.42	1.91	2.22	2.45	2.84	2.37	2.75	2.22	2.57	2.73	3.16	2.66	3.08	2.51	2.91		
	D3 =	0.87	1.01	1.16	1.49	1.77	2.06	0.97	1.12	1.37	1.59	1.84	2.13	1.07	1.24	1.46	1.69	1.92	2.22	1.17	1.35	1.56	1.80	2.00	2.32		
<b>Schneelastzone 3 / Windlastzone 3 (Winddruck von oben)</b>																											
<256	A3 =	0.70	0.44	0.61	0.44	0.68	0.43	0.80	0.51	0.79	0.50	0.78	0.50	0.90	0.57	0.89	0.57	0.88	0.56	1.00	0.63	0.99	0.63	0.98	0.63	$\gamma F = 1.478$	
	B3 =	2.15	2.45	1.94	2.48	2.23	2.55	2.45	2.80	2.48	2.83	2.53	2.88	2.76	3.15	2.78	3.18	2.83	3.23	3.07	3.50	3.09	3.52	3.13	3.57		
	C3 =	2.13	2.43	1.80	2.30	1.79	2.05	2.44	2.78	2.34	2.67	2.14	2.45	2.75	3.14	2.66	3.04	2.48	2.84	3.05	3.49	2.98	3.40	2.82	3.22		
	D3 =	0.98	1.12	1.28	1.64	1.99	2.27	1.09	1.24	1.54	1.75	2.07	2.36	1.20	1.37	1.64	1.87	2.15	2.45	1.31	1.49	1.74	1.99	2.24	2.56		
<b>H3 =</b>																											
0.46 1.50 0.49 1.59 0.52 1.69 0.52 1.71 0.55 1.80 0.58 1.89 0.59 1.92 0.61 2.01 0.64 2.10 0.65 2.13 0.68 2.22 0.71 2.31 für Windlastzone 3																											
<b>Schneelastzone 1 / Windlastzone 4 (Winddruck von oben)</b>																											
<400	A3 =	0.60	0.29	0.59	0.29	0.57	0.29	0.68	0.33	0.67	0.33	0.66	0.33	0.77	0.38	0.76	0.37	0.75	0.37	0.86	0.42	0.85	0.42	0.83	0.41	$\gamma F = 1.466$	
	B3 =	1.91	2.27	1.93	2.30	1.99	2.35	2.18	2.59	2.31	2.62	2.25	2.67	2.46	2.91	2.47	2.94	2.51	2.98	2.73	3.24	2.75	3.26	2.78	3.30		
	C3 =	1.90	2.25	1.80	2.13	1.60	1.89	2.17	2.57	2.08	2.47	1.91	2.26	2.44	2.90	2.37	2.81	2.21	2.62	2.72	3.22	2.65	3.14	2.51	2.97		
	D3 =	0.87	1.03	1.28	1.52	1.77	2.10	0.97	1.15	1.37	1.62	1.84	2.18	1.07	1.26	1.46	1.73	1.91	2.27	1.16	1.38	1.55	1.84	1.99	2.36		
<b>Schneelastzone 2 / Windlastzone 4 (Winddruck von oben)</b>																											
<286	A3 =	0.67	0.36	0.66	0.36	0.64	0.35	0.76	0.41	0.75	0.41	0.74	0.40	0.86	0.46	0.85	0.46	0.83	0.46	0.95	0.51	0.94	0.51	0.93	0.51	$\gamma F = 1.473$	
	B3 =	2.10	2.45	2.12	2.48	2.18	2.55	2.40	2.80	2.42	2.83	2.47	2.88	2.69	3.15	2.71	3.18	2.76	3.23	2.99	3.50	3.01	3.52	3.05	3.57		
	C3 =	2.08	2.43	1.97	2.30	1.75	2.05	2.38	2.78	2.28	2.67	2.09	2.45	2.68	3.14	2.59	3.04	2.42	2.84	2.98	3.49	2.90	3.40	2.75	3.22		
	D3 =	0.95	1.12	1.40	1.64	1.94	2.27	1.06	1.24	1.50	1.75	2.01	2.36	1.17	1.37	1.60	1.87	2.10	2.45	1.28	1.49	1.70	1.99	2.18	2.56		
<b>H3 =</b>																											
0.54 1.78 0.58 1.89 0.61 2.00 0.62 2.03 0.65 2.14 0.69 2.35 0.70 2.28 0.73 2.39 0.76 2.50 0.77 2.52 0.80 2.63 0.84 2.74 für Windlastzone 4																											

alle Werte sind charakteristische Werte. Für die Bemessung der nicht kursiven werte  $\gamma F = 1.35$



### TABELLE 31

#### BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A1, B1, H1 in KN/m



Spannweite l =	1.05				1.20				1.35				1.50					
Kragweite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
Neigung α =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°

#### Windlastzone 1 (Winddruck von unten)

A1 =	-0.37	-0.19	-0.34	-0.09	-0.27	+0.05	-0.43	-0.22	-0.39	-0.13	-0.34	-0.00	-0.48	-0.25	-0.45	-0.16	-0.40	-0.04	-0.53	-0.29	-0.51	-0.20	-0.46	-0.08
B1 =	-0.49	-0.65	-0.67	-0.89	-0.89	-1.18	-0.55	-0.72	-0.73	-0.96	-0.93	-1.24	-0.60	-0.80	-0.78	-1.04	-0.98	-1.30	-0.66	-0.88	-0.84	-1.11	-1.03	-1.37
H1 =	-0.18	-0.60	-0.21	-0.70	-0.25	-0.81	-0.21	-0.68	-0.24	-0.78	-0.27	-0.88	-0.23	-0.75	-0.26	-0.86	-0.29	-0.96	-0.25	-0.83	-0.29	-0.94	-0.32	-1.04

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.60$

#### Windlastzone 2 (Winddruck von unten)

A1 =	-0.51	-0.27	-0.46	-0.14	-0.37	+0.04	-0.58	-0.32	-0.54	-0.20	-0.46	-0.02	-0.66	-0.37	-0.62	-0.25	-0.55	-0.09	-0.73	-0.41	-0.69	-0.30	-0.63	-0.14
B1 =	-0.66	-0.87	-0.92	-1.20	-1.21	-1.59	-0.74	-0.98	-0.99	-1.30	-1.27	-1.67	-0.82	-1.08	-1.06	-1.40	-1.34	-1.76	-0.90	-1.18	-1.14	-1.50	-1.41	-1.85
H1 =	-0.24	-0.78	-0.28	-0.91	-0.32	-1.05	-0.27	-0.88	-0.31	-1.01	-0.35	-1.15	-0.30	-0.98	-0.34	-1.12	-0.38	-1.25	-0.33	-1.08	-0.37	-1.22	-0.41	-1.35

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.574$

#### Windlastzone 3 (Winddruck von unten)

A1 =	-0.64	-0.36	-0.58	-0.20	-0.47	+0.04	-0.74	-0.42	-0.68	-0.26	-0.58	-0.05	-0.83	-0.48	-0.78	-0.33	-0.69	-0.13	-0.92	-0.54	-0.88	-0.39	-0.80	-0.20
B1 =	-0.84	-1.10	-1.16	-1.52	-1.52	-2.00	-0.94	-1.23	-1.25	-1.64	-1.61	-2.10	-1.04	-1.36	-1.34	-1.76	-1.69	-2.21	-1.14	-1.49	-1.44	-1.89	-1.78	-2.33
H1 =	-0.29	-0.96	-0.34	-1.12	-0.39	-1.29	-0.33	-1.08	-0.38	-1.25	-0.43	-1.41	-0.37	-1.21	-0.42	-1.37	-0.47	-1.54	-0.41	-1.33	-0.46	-1.50	-0.51	-1.66

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.558$

#### Windlastzone 4 (Winddruck von unten)

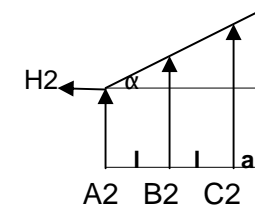
A1 =	-0.78	-0.44	-0.71	-0.25	-0.57	+0.03	-0.89	-0.51	-0.83	-0.33	-0.71	-0.08	-1.00	-0.59	-0.95	-0.41	-0.84	-0.17	-1.12	-0.66	-1.06	-0.49	-0.97	-0.26
B1 =	-1.02	-1.33	-1.40	-1.83	-1.84	-2.41	-1.13	-1.48	-1.51	-1.98	-1.94	-2.54	-1.25	-1.64	-1.62	-2.13	-2.04	-2.67	-1.38	-1.80	-1.74	-2.28	-2.15	-2.81
H1 =	-0.35	-1.14	-0.41	-1.33	-0.47	-1.53	-0.39	-1.28	-0.45	-1.48	-0.51	-1.68	-0.44	-1.43	-0.50	-1.63	-0.56	-1.83	-0.48	-1.58	-0.54	-1.78	-0.60	-1.78

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.548$

**TABELLE 32**

**BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A2, B2, C2, H2 in KN/m**

**2-Feld**



Spannweite l =	1.05						1.20						1.35						1.50					
Kragweite a =	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
Neigung $\alpha$ =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°

**Windlastzone 1 (Winddruck von unten)**

<b>A2 =</b>	-0.25 +0.25	-0.25 +0.30	-0.26 +0.34	-0.28 +0.29	-0.28 +0.34	-0.29 +0.38	-0.32 +0.32	-0.32 +0.37	-0.32 +0.42	-0.35 +0.35	-0.35 +0.40	-0.36 +0.45
<b>B2 =</b>	-1.01 -1.34	-0.97 -1.28	-0.88 -1.16	-1.16 -1.53	-1.12 -1.48	-1.04 -1.38	-1.30 -1.73	-1.27 -1.68	-1.20 -1.59	-1.45 -1.92	-1.42 -1.88	-1.36 -1.80
<b>C2 =</b>	-0.39 -0.51	-0.58 -0.77	-0.81 -1.07	-0.43 -0.57	-0.62 -0.82	-0.84 -1.11	-0.47 -0.63	-0.66 -0.87	-0.87 -1.15	-0.52 -0.69	-0.70 -0.93	-0.91 -1.20
<b>H2 =</b>	-0.35 -1.14	-0.38 -1.25	-0.41 -1.35	-0.40 -1.30	-0.43 -1.40	-0.46 -1.51	-0.44 -1.46	-0.48 -1.56	-0.51 -1.66	-0.49 -1.61	-0.52 -1.71	-0.56 -1.82

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.600$

**Windlastzone 2 (Winddruck von unten)**

<b>A2 =</b>	-0.34 +0.31	-0.34 +0.37	-0.35 +0.43	-0.39 +0.35	-0.39 +0.42	-0.40 +0.47	-0.43 +0.39	-0.43 +0.46	-0.44 +0.51	-0.48 +0.43	-0.48 +0.50	-0.49 +0.56
<b>B2 =</b>	-1.38 -1.81	-1.32 -1.73	-1.20 -1.57	-1.57 -2.07	-1.52 -2.00	-1.42 -1.86	-1.77 -2.33	-1.73 -2.27	-1.63 -2.15	-1.97 -2.59	-1.93 -2.54	-1.84 -2.43
<b>C2 =</b>	-0.53 -0.69	-0.79 -1.04	-1.10 -1.45	-0.59 -0.77	-0.84 -1.11	-1.14 -1.50	-0.64 -0.85	-0.89 -1.18	-1.18 -1.56	-0.70 -0.93	-0.95 -1.25	-1.23 -1.62
<b>H2 =</b>	-0.45 -1.49	-0.50 -1.62	-0.54 -1.76	-0.52 -1.69	-0.56 -1.82	-0.60 -1.96	-0.58 -1.89	-0.62 -2.03	-0.66 -2.16	-0.64 -2.09	-0.68 -2.23	-0.72 -2.37

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.574$

**Windlastzone 3 (Winddruck von unten)**

<b>A2 =</b>	-0.43 +0.36	-0.43 +0.44	-0.45 +0.51	-0.49 +0.41	-0.49 +0.49	-0.51 +0.56	-0.55 +0.46	-0.55 +0.54	-0.56 +0.61	-0.61 +0.50	-0.61 +0.59	-0.62 +0.66
<b>B2 =</b>	-1.74 -2.28	-1.66 -2.18	-1.51 -1.98	-1.99 -2.61	-1.92 -2.52	-1.79 -2.35	-2.24 -2.94	-2.18 -2.86	-2.06 -2.70	-2.49 -3.27	-2.44 -3.20	-2.33 -3.06
<b>C2 =</b>	-0.67 -0.87	-1.00 -1.31	-1.39 -1.82	-0.74 -0.97	-1.06 -1.39	-1.44 -1.89	-0.82 -1.07	-1.13 -1.48	-1.50 -1.96	-0.89 -1.17	-1.20 -1.57	-1.56 -2.04
<b>H2 =</b>	-0.56 -1.83	-0.61 -2.00	-0.66 -2.16	-0.64 -2.08	-0.69 -2.25	-0.74 -2.41	-0.71 -2.33	-0.76 -2.49	-0.81 -2.66	-0.79 -2.58	-0.84 -2.74	-0.89 -2.91

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.558$

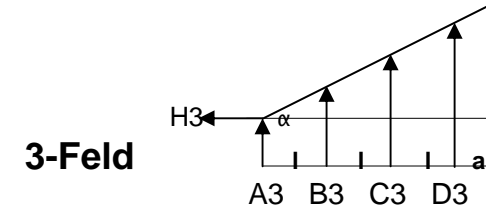
**Windlastzone 4 (Winddruck von unten)**

<b>A2 =</b>	-0.52 +0.42	-0.53 +0.52	-0.54 +0.59	-0.59 +0.47	-0.60 +0.57	-0.61 +0.65	-0.67 +0.53	-0.67 +0.63	-0.68 +0.71	-0.74 +0.58	-0.74 +0.68	-0.75 +0.77
<b>B2 =</b>	-2.10 -2.75	-2.01 -2.63	-1.83 -2.39	-2.41 -3.14	-2.32 -3.04	-2.16 -2.83	-2.71 -3.54	-2.64 -3.45	-2.49 -3.26	-3.01 -3.94	-2.95 -3.85	-2.82 -3.69
<b>C2 =</b>	-0.81 -1.05	-1.21 -1.58	-1.68 -2.20	-0.90 -1.17	-1.28 -1.68	-1.74 -2.28	-0.99 -1.29	-1.37 -1.79	-1.81 -2.36	-1.08 -1.41	-1.45 -1.90	-1.88 -2.46
<b>H2 =</b>	-0.66 -2.17	-0.72 -2.37	-0.79 -2.57	-0.75 -2.47	-0.81 -2.67	-0.87 -2.86	-0.84 -2.77	-0.91 -2.96	-0.96 -3.16	-0.94 -3.06	-1.00 -3.26	-1.06 -3.46

alle Werte sind charakteristische Werte. Für die Bemessung  $\gamma_F = 1.548$

### TABELLE 33

#### BELASTUNG DER DACHPFETTEN DURCH PV-UNTERGESTELLE A3, B3, C3, D3, H3 in KN/m



Spannweite l =	1.05						1.20						1.35						1.50					
	0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50		0.10		0.30		0.50	
Kragweite a =	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
Neigung α =																								
<b>Windlastzone 1 (Winddruck von unten)</b>																								
A3 =	-0.24	+0.54	-0.23	+0.61	-0.22	+0.67	-0.27	+0.62	-0.26	+0.68	-0.25	+0.74	-0.30	+0.69	-0.30	+0.75	-0.29	+0.82	-0.34	+0.76	-0.33	+0.83	-0.32	+0.89
B3 =	-0.90	-1.19	-0.91	-1.20	-0.93	-1.23	-1.03	-1.36	-1.04	-1.37	-1.06	-1.40	-1.15	-1.53	-1.16	-1.54	-1.18	-1.56	-1.28	-1.70	-1.29	-1.71	-1.31	-1.73
C3 =	-0.89	-1.18	-0.84	-1.12	-0.75	-0.99	-1.02	-1.35	-0.98	-1.29	-0.90	-1.19	-1.15	-1.52	-1.11	-1.47	-1.04	-1.37	-1.28	-1.69	-1.24	-1.65	-1.18	-1.56
D3 =	-0.41	-0.54	-0.60	-0.80	-0.83	-1.10	-0.45	-0.60	-0.64	-0.85	-0.86	-1.14	-0.50	-0.66	-0.68	-0.91	-0.90	-1.19	-0.55	-0.72	-0.73	-0.96	-0.94	-1.24
H3 =	-0.52	-1.69	-0.55	-1.79	-0.58	-1.90	-0.59	-1.92	-0.62	-2.03	-0.65	-2.13	-0.66	-2.16	-0.69	-2.26	-0.72	-2.36	-0.73	-2.39	-0.76	-2.49	-0.79	-2.60
alle Werte sind charakteristische Werte. Für die Bemessung $\gamma_F = 1.600$																								
<b>Windlastzone 2 (Winddruck von unten)</b>																								
A3 =	-0.32	+0.68	-0.32	+0.77	-0.30	+0.85	-0.37	+0.78	-0.36	+0.86	-0.35	+0.94	-0.42	+0.87	-0.41	+0.95	-0.40	+1.03	-0.46	+0.96	-0.46	+1.04	-0.45	+1.13
B3 =	-1.22	-1.60	-1.23	-1.62	-1.27	-1.67	-1.39	-1.83	-1.41	-1.85	-1.44	-1.89	-1.57	-2.06	-1.58	-2.08	-1.60	-2.11	-1.74	-2.29	-1.75	-2.30	-1.77	-2.33
C3 =	-1.21	-1.59	-1.15	-1.51	-1.02	-1.34	-1.38	-1.82	-1.33	-1.75	-1.22	-1.60	-1.56	-2.05	-1.51	-1.99	-1.41	-1.86	-1.73	-2.28	-1.69	-2.22	-1.60	-2.10
D3 =	-0.56	-0.73	-0.82	-1.07	-1.13	-1.49	-0.62	-0.81	-0.87	-1.15	-1.17	-1.54	-0.68	-0.89	-0.93	-1.22	-1.22	-1.61	-0.74	-0.98	-0.99	-1.30	-1.27	-1.67
H3 =	-0.67	-2.20	-0.71	-2.33	-0.75	-2.47	-0.76	-2.50	-0.81	-2.64	-0.85	-2.77	-0.86	-2.80	-0.90	-2.94	-0.94	-3.07	-0.95	-3.11	-0.99	-3.24	-1.03	-3.38
alle Werte sind charakteristische Werte. Für die Bemessung $\gamma_F = 1.574$																								
<b>Windlastzone 3 (Winddruck von unten)</b>																								
A3 =	-0.41	+0.83	-0.40	+0.93	-0.39	+1.03	-0.47	+0.93	-0.46	+1.04	-0.45	+1.14	-0.53	+1.05	-0.52	+1.15	-0.51	+1.25	-0.59	+1.16	-0.58	+1.26	-0.57	+1.36
B3 =	-1.54	-2.02	-1.56	-2.05	-1.60	-2.10	-1.76	-2.31	-1.78	-2.33	-1.81	-2.38	-1.98	-2.60	-2.00	-2.62	-2.03	-2.66	-2.20	-2.88	-2.21	-2.90	-2.24	-2.94
C3 =	-1.53	-2.00	-1.45	-1.90	-1.29	-1.69	-1.75	-2.30	-1.68	-2.20	-1.54	-2.02	-1.97	-2.58	-1.91	-2.50	-1.78	-2.34	-2.19	-2.87	-2.13	-2.80	-2.02	-2.65
D3 =	-0.70	-0.92	-1.03	-1.35	-1.30	-1.87	-0.78	-1.02	-1.10	-1.45	-1.48	-1.94	-0.86	-1.13	-1.18	-1.54	-1.54	-2.02	-0.94	-1.23	-1.25	-1.64	-1.61	-2.11
H3 =	-0.83	-2.70	-0.88	-2.87	-0.93	-3.03	-0.94	-3.08	-0.99	-3.24	-1.04	-3.41	-1.05	-3.45	-1.10	-3.62	-1.16	-3.78	-1.17	-3.83	-1.22	-3.99	-1.27	-4.16
alle Werte sind charakteristische Werte. Für die Bemessung $\gamma_F = 1.558$																								
<b>Windlastzone 4 (Winddruck von unten)</b>																								
A3 =	-0.50	+0.97	-0.49	+1.09	-0.47	+1.21	-0.58	+1.10	-0.56	+1.22	-0.54	+1.34	-0.65	+1.23	-0.64	+1.35	-0.62	+1.47	-0.72	+1.36	-0.71	+1.48	-0.69	+1.60
B3 =	-1.86	-2.44	-1.88	-2.47	-1.94	-2.53	-2.13	-2.78	-2.15	-2.81	-2.19	-2.87	-2.39	-3.13	-2.41	-3.16	-2.45	-3.20	-2.66	-3.48	-2.68	-3.50	-2.71	-3.55
C3 =	-1.85	-2.42	-1.75	-2.29	-1.56	-2.03	-2.12	-2.77	-2.03	-2.66	-1.86	-2.43	-2.38	-3.12	-2.31	-3.02	-2.15	-2.82	-2.65	-3.46	-2.58	-3.38	-2.44	-3.20
D3 =	-0.85	-1.11	-1.25	-1.63	-1.73	-2.26	-0.94	-1.23	-1.33	-1.74	-1.79	-2.34	-1.04	-1.36	-1.42	-1.86	-1.86	-2.44	-1.14	-1.48	-1.51	-1.98	-1.94	-2.54
H3 =	-0.98	-3.21	-1.04	-3.41	-1.10	-3.60	-1.12	-3.65	-1.18	-3.85	-1.24	-4.05	-1.25	-4.10	-1.31	-4.29	-1.37	-4.49	-1.39	-4.54	-1.45	-4.74	-1.51	-4.94
alle Werte sind charakteristische Werte. Für die Bemessung $\gamma_F = 1.548$																								