

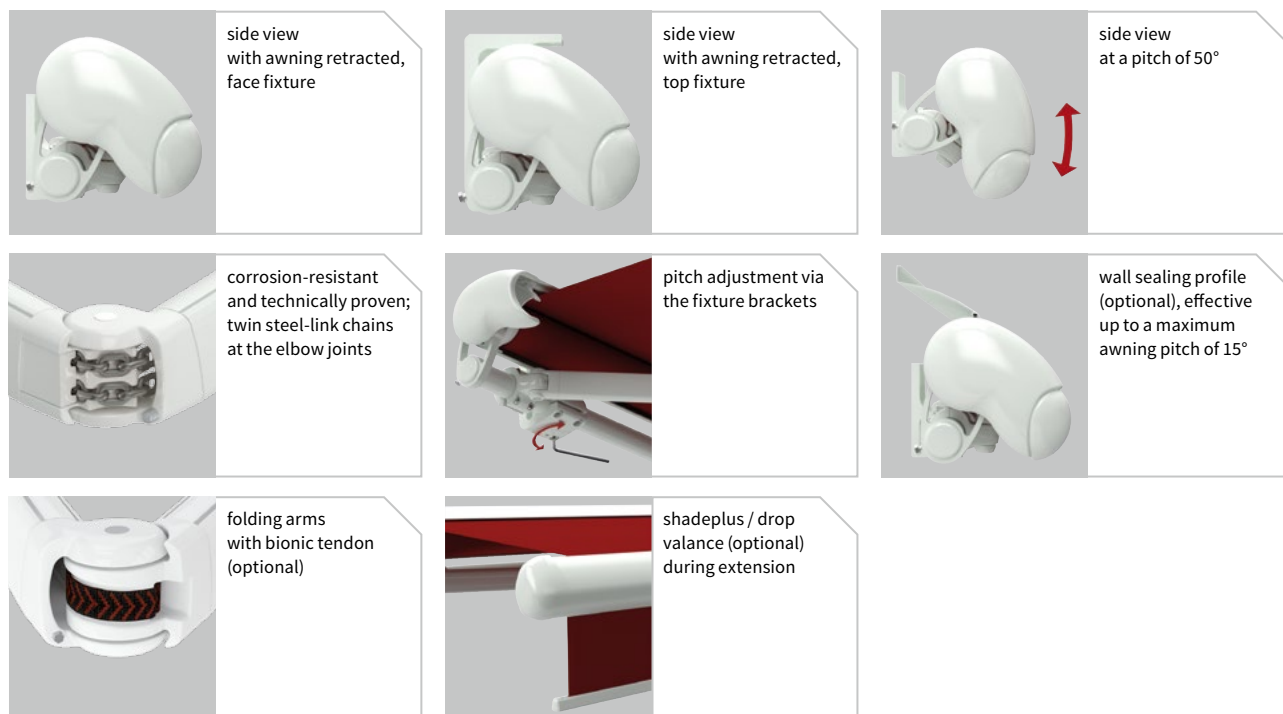


markilux 1600

**Excellent design and well-thought-out mechanics –
the semi-cassette awning with a projection of up to 400 cm**

**rated to wind resistance class 2
(corresponds to Beaufort 5)**





Design Features

presented with the IF Design Award for excellent design

folding-arm awning in a semi-cassette version. The dynamically rounded coverboard gives the awning the appearance of being fully cassetted.

elegant and robust front profile made of aluminium

Technical Specification

the extremely sturdy awning construction makes it possible to shade even very large areas safely

sturdy, round steel torque bar, 50 mm Ø, to prevent twist and deflection

coverboard with integrated brush, so that larger pieces of dirt and debris cannot be drawn into the awning

the 85 mm roller tube ensures the highest stiffness and the best possible cover winding characteristics even at the largest widths

folding arms with perfected power transference by means of twin, steel-link chains and direct coupling of the springs. High security even in the case of large arm lengths.

Optional Accessories

the shadeplus creates an additional room on the patio; protection from the sun, the wind and inquisitive glances all in one

radio-controlled motor with radio remote control for ease of use

hard-wired motor operation (optionally with automatic weather controls) for straightforward and easy operation

in the case of manual operation ease of use is ensured with the spring-assisted gearbox

wall sealing profile to cover the gap between awning and wall

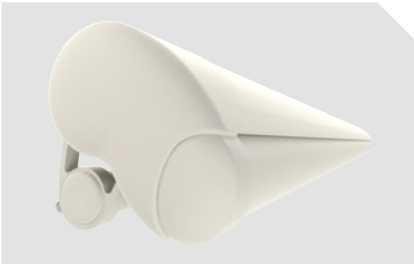
available with a valance

awning available in non-standard RAL colours

Lounge colours

markilux 1600

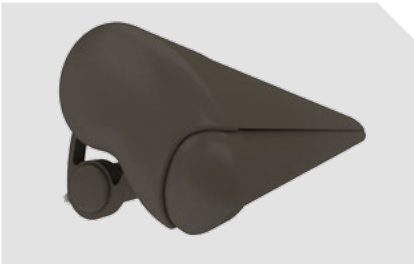
off-white textured finish 5233



stone grey metallic 5215



Havanna brown textured finish 5229

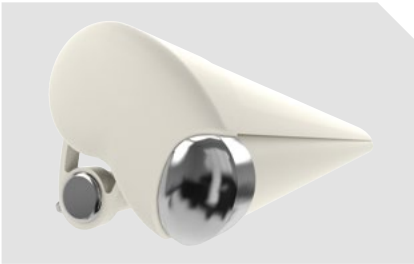


anthracite metallic 5204



Designer end caps in polished chrome

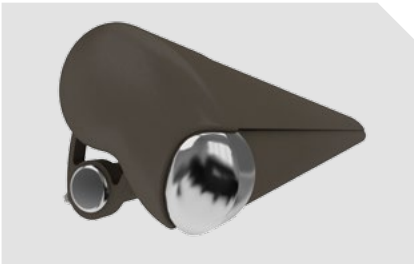
off-white textured finish 5233



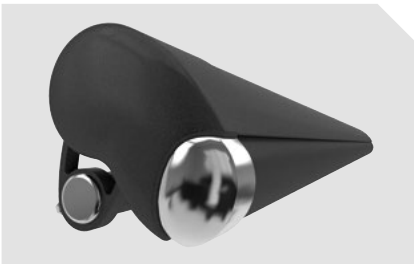
stone grey metallic 5215



Havanna brown textured finish 5229


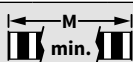









anthracite metallic 5204

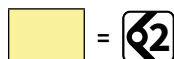
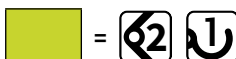


Colours may differ slightly from those depicted in both hue and finish.

Dimensions and configuration options

|  | | | | | | | | | | |  | | | | |
|---|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|
| | | | | | | | | | | |  | |  | | |
| | | | | | | | | | | |  |  |  |  |  |
| | | | | | | | | | | | 187 | 174 | 661 | 190 | 177 |
| | | | | | | | | | | | 237 | 224 | 661 | 240 | 227 |
| | | | | | | | | | | | 287 | 274 | 661 | 290 | 277 |
| | | | | | | | | | | | 337 | 324 | 661 | 340 | 327 |
| | | | | | | | | | | | 387 | 374 | 661 | 390 | 377 |
| | | | | | | | | | | | 437 | 424 | 687 | - | - |

dimensions in cm

= =  =  

1) a shadeplus / drop valance is not possible

2) awnings with 3 arms or a projection of 400 cm are only available with motor

3) please note the minimum widths!

Operation / Drive

| | standard | optional |
|----------------------------------|-------------------------------------|-------------------------------------|
| manual operation | <input checked="" type="checkbox"/> | – |
| servo-assisted operation | – | <input checked="" type="checkbox"/> |
| hard-wired motor | – | <input checked="" type="checkbox"/> |
| io radio controls | – | <input checked="" type="checkbox"/> |
| radio-controlled motor (433 MHz) | – | <input checked="" type="checkbox"/> |

Shadeplus / drop valance

| | standard | optional |
|----------------------------------|----------|-------------------------------------|
| manual operation | – | <input checked="" type="checkbox"/> |
| hard-wired motor | – | <input checked="" type="checkbox"/> |
| radio-controlled motor (433 MHz) | – | <input checked="" type="checkbox"/> |

Covers

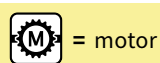
| | fabric range no. | standard | optional |
|-------------------|------------------------------------|-------------------------------------|-------------------------------------|
| sun silk snc | 324 .. / 328 .. / 369 .. | <input checked="" type="checkbox"/> | – |
| sun silk perla FR | 374 .. | – | <input checked="" type="checkbox"/> |
| sun vas snc | 310 .. / 311 .. 313 .. – 315 .. | <input checked="" type="checkbox"/> | – |
| sun vas perla | 370 .. | – | <input checked="" type="checkbox"/> |

Coupled units

| | standard | optional |
|-----------------|----------|---|
| 2 fields | – | <input checked="" type="checkbox"/> ⁴⁾ |
| junction roller | – | <input checked="" type="checkbox"/> ⁵⁾ |

4) for minimum widths please consult the section “Technical Information”

5) see overview “Bracket fixture range”



= motor



= manual operation



= no. of folding arms



= no. of bespoke arms












= no. of rolltex bearings

M = awning width


M min. = minimum widths

H = projection

Frame colours

| | | standard | optional |
|-----------------------------------|----------|---|---|
| traffic white | RAL 9016 |  | |
| metallic aluminium | RAL 9006 |  | |
| grey brown, similar to | RAL 8019 |  | |
| light ivory | RAL 1015 |  | |
| anthracite metallic | 5204 |  | |
| stone grey metallic | 5215 |  | |
| off-white textured finish | 5233 |  | |
| Havanna brown textured finish | 5229 |  | |
| non-standard powder-coated finish | | |  |

Other end cap colour options

| | standard | optional |
|-----------------|----------|---|
| polished chrome | |  |

Miscellaneous

| | standard | optional |
|---|----------|---|
| bionic tendon | — | <input checked="" type="checkbox"/> |
| wall sealing profile | — | <input checked="" type="checkbox"/> ¹⁾ |
| light and wind sensor | — | <input checked="" type="checkbox"/> |
| insertable side blind | — | <input checked="" type="checkbox"/> |
| valance | — | <input checked="" type="checkbox"/> |
| infrared heater | — | <input checked="" type="checkbox"/> |
| vibrabox / radio control light sensor Sunis WireFree | — | <input checked="" type="checkbox"/> |

1) up to a maximum awning pitch of 15°

Additional information

The width of the awning cover is always **less** than that of the awning. Please refer cover sizes in the case of coupled units and those with more than 2 arms to us.

Pitch adjustment range: from 5° to 50° (to the horizontal).

Definition of projection:

Please consult the section “Technical Information”.

In the case of manual operation approximately **16 winding handle revolutions can be assumed per metre of awning projection**.

It takes approximately **12 seconds per metre** to extend the awning in the case of **motor-driven units**.

Definition of shadeplus drop: The shadeplus drop is measured from the bottom edge of the shadeplus profile to the bottom edge of the valance profile. Due to fabric thickness tolerances the actual drop may be shorter than the nominal drop by up to 5 cm. For the maximum shadeplus drops please consult the section “Technical Information”.

A shadeplus is not available with sunsilk perla FR, sunvas perla or PVC covers.

Coupled folding-arm awnings are available up to a **max. of 2 single units** side by side, however **only with a motor**.

A coupled unit is available with **junction roller**. Pattern repeat mismatches are possible in the case of junction roller covers. A junction roller may not fit when the projection is the maximum for the width of each awning. (see also the section on “Installation”, the arm separation table).

If coupled awnings are fitted into a **recess or reveal** the overall width of the coupled awning must be at least 6 cm less than the width of the opening to allow the awning to be coupled.

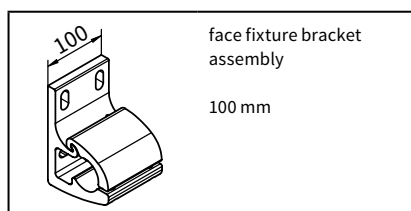
Dimensions and tolerances

| | width | projection |
|--|-------------|------------|
| housing tolerances | +5 / -15 mm | ±40 mm |
| awning cover width = awning width | -260 mm | |
| awning cover length = awning projection | | +180 mm |

Colours similar to those in the RAL chart. Colours may differ slightly from those depicted in both hue and finish.

Fixtures, fittings and accessories

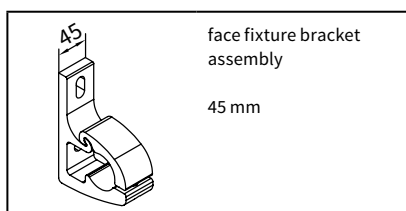
Fixture brackets



70867.

face fixture bracket
assembly

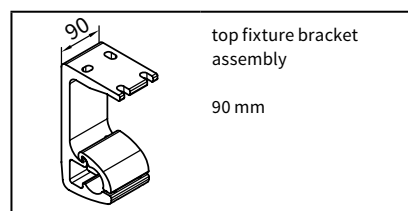
100 mm



71813.

face fixture bracket
assembly

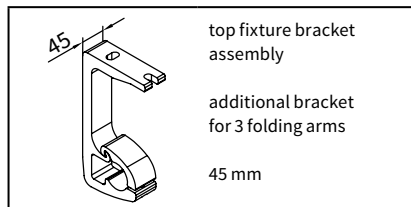
45 mm



70868.

top fixture bracket
assembly

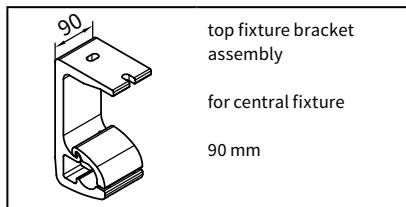
90 mm



71818.

top fixture bracket
assemblyadditional bracket
for 3 folding arms

45 mm

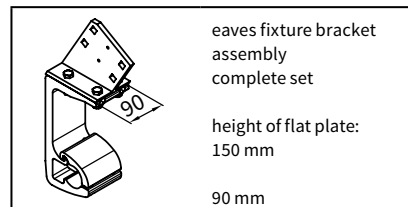


70869.

top fixture bracket
assembly

for central fixture

90 mm

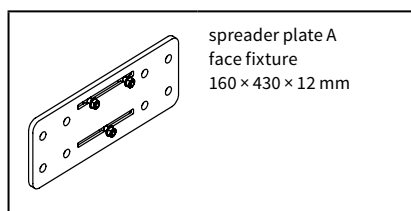


70871.

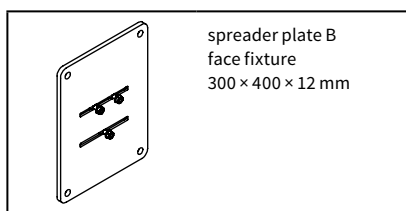
eaves fixture bracket
assembly
complete setheight of flat plate:
150 mm

90 mm

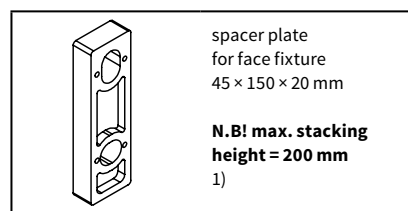
Spreader and spacer plates



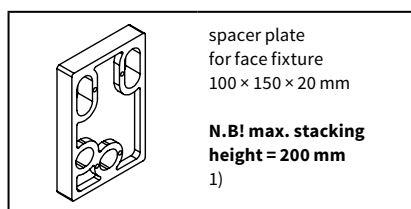
75326.

spreader plate A
face fixture
160 × 430 × 12 mm

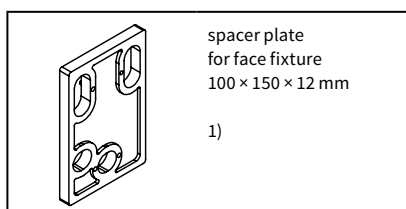
75325.

spreader plate B
face fixture
300 × 400 × 12 mm

718251

spacer plate
for face fixture
45 × 150 × 20 mm**N.B! max. stacking
height = 200 mm**
1)

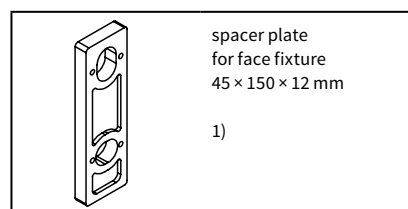
718231

spacer plate
for face fixture
100 × 150 × 20 mm**N.B! max. stacking
height = 200 mm**
1)

718241

spacer plate
for face fixture
100 × 150 × 12 mm

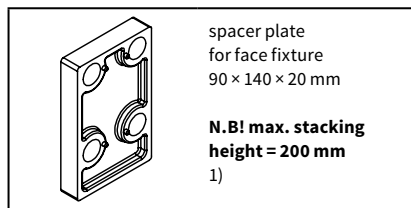
1)



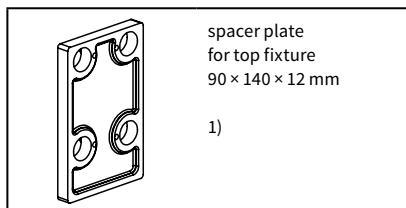
71826.

spacer plate
for face fixture
45 × 150 × 12 mm

1)



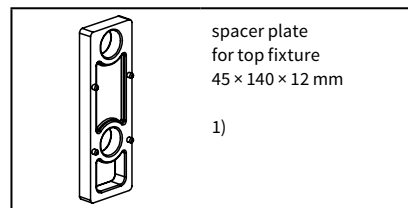
716311

spacer plate
for face fixture
90 × 140 × 20 mm**N.B! max. stacking
height = 200 mm**
1)

716411

spacer plate
for top fixture
90 × 140 × 12 mm

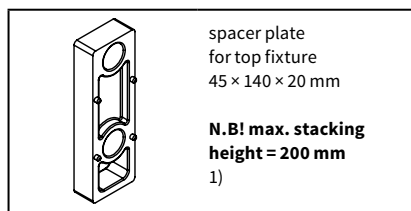
1)



716371

spacer plate
for top fixture
45 × 140 × 12 mm

1)



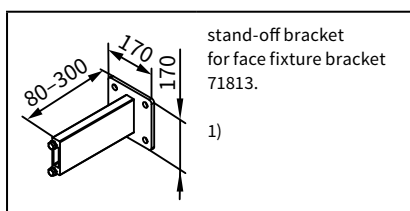
716261

spacer plate
for top fixture
45 × 140 × 20 mm**N.B! max. stacking
height = 200 mm**
1)

1) please refer to the section "Technical Information"

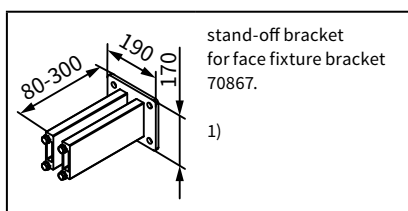
. = insert RAL colour code no

Stand-off brackets



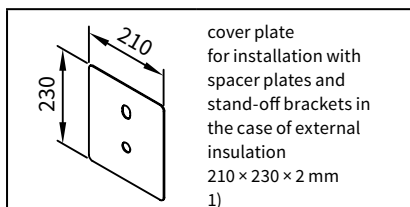
stand-off bracket
for face fixture bracket
71813.

1)

77967.

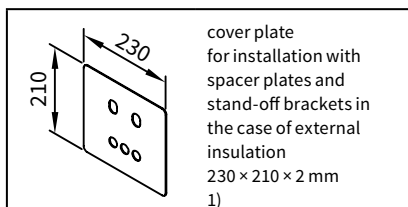
stand-off bracket
for face fixture bracket
70867.

1)

77968.

cover plate
for installation with
spacer plates and
stand-off brackets in
the case of external
insulation
210 × 230 × 2 mm

1)

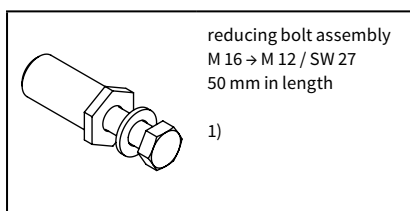
71844.

cover plate
for installation with
spacer plates and
stand-off brackets in
the case of external
insulation
230 × 210 × 2 mm

1)

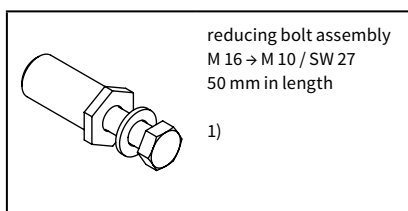
71843.

Accessories



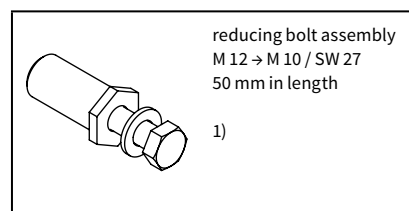
reducing bolt assembly
M 16 → M 12 / SW 27
50 mm in length

1)

753891

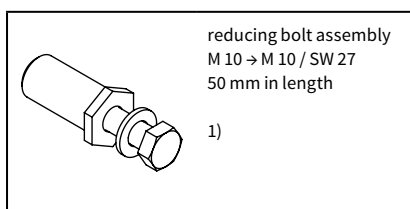
reducing bolt assembly
M 16 → M 10 / SW 27
50 mm in length

1)

754921

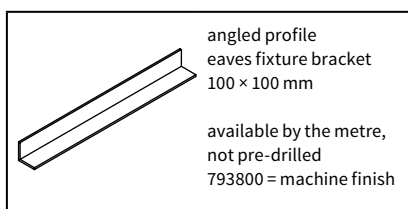
reducing bolt assembly
M 12 → M 10 / SW 27
50 mm in length

1)

754911

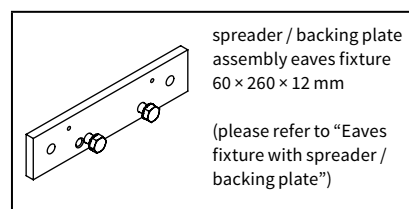
reducing bolt assembly
M 10 → M 10 / SW 27
50 mm in length

1)

754901

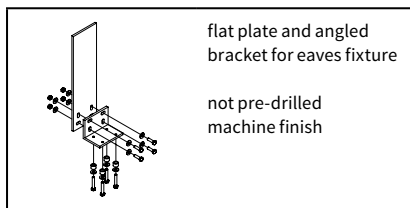
angled profile
eaves fixture bracket
100 × 100 mm

available by the metre,
not pre-drilled
793800 = machine finish

79380.

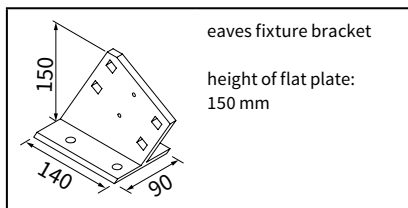
spreader / backing plate
assembly eaves fixture
60 × 260 × 12 mm

(please refer to "Eaves
fixture with spreader /
backing plate")

75383.

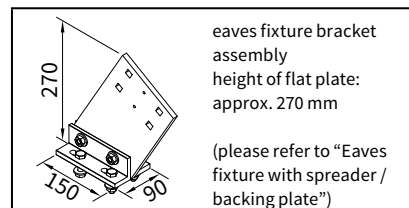
flat plate and angled
bracket for eaves fixture

not pre-drilled
machine finish

716620

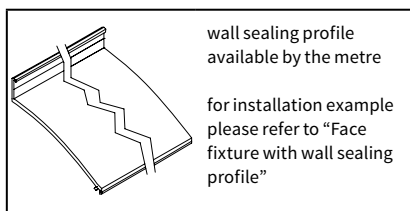
eaves fixture bracket

height of flat plate:
150 mm

71612.

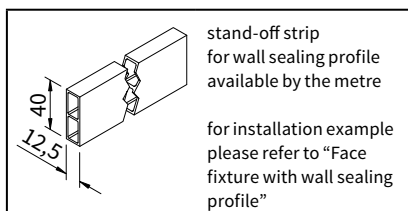
eaves fixture bracket
assembly
height of flat plate:
approx. 270 mm

(please refer to "Eaves
fixture with spreader /
backing plate")

71659.

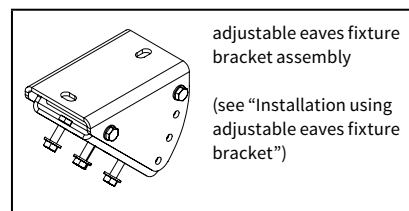
wall sealing profile
available by the metre

for installation example
please refer to "Face
fixture with wall sealing
profile"

77780.

stand-off strip
for wall sealing profile
available by the metre

for installation example
please refer to "Face
fixture with wall sealing
profile"

751971

adjustable eaves fixture
bracket assembly

(see "Installation using
adjustable eaves fixture
bracket")

71198.

1) please refer to the section "Technical Information"

. = insert RAL colour code no

Face fixture

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

| H [cm] | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|-----|------|------|------|------|------|------|------|------|------|
| 150 | 452 | 515 | 579 | 642 | 706 | 769 | 833 | 896 | 960 | 729 |
| 200 | 698 | 799 | 899 | 1000 | 1100 | 1201 | 1301 | 1402 | 1502 | 1138 |
| 250 | - | 1180 | 1326 | 1471 | 1617 | 1762 | 1907 | 2053 | 2479 | 1874 |
| 300 | - | - | 1783 | 1981 | 2179 | 2377 | 2917 | 3147 | 3377 | 2548 |
| 350 | - | - | - | 2563 | 3200 | 3502 | 3804 | 4106 | 4408 | 3321 |
| 400 | - | - | - | - | 4039 | 4423 | 4806 | 5190 | - | 4194 |

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

| BM | 6 | 8 | 11 |
|----|---|---|----|
|----|---|---|----|

Non compression-proof substrate

M [cm]

| H [cm] | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|-----|------|------|------|------|------|------|------|------|------|
| 150 | 617 | 704 | 791 | 878 | 965 | 1051 | 1138 | 1225 | 1312 | 996 |
| 200 | 954 | 1091 | 1229 | 1366 | 1503 | 1641 | 1778 | 1916 | 2053 | 1555 |
| 250 | - | 1613 | 1812 | 2011 | 2209 | 2408 | 2607 | 2805 | 3388 | 2562 |
| 300 | - | - | 2437 | 2708 | 2978 | 3249 | 3989 | 4300 | 4615 | 3482 |
| 350 | - | - | - | 3503 | 4373 | 4786 | 5199 | 5612 | 6025 | 4539 |
| 400 | - | - | - | - | 5519 | 6044 | 6569 | 7094 | - | 5732 |

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

| BM | 6 | 8 | 11 |
|----|---|---|----|
|----|---|---|----|

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **90 mm**. If this measurement is reduced to the minimum, the pull-out force increases by **14%** in the case of **compression-proof substrates** and by **19%** in the case of **non compression-proof substrates**.

If the awning is fixed with 2 brackets per folding arm, the pull-out force can be halved.

Place the brackets immediately to the left and right of the arm bearer.

M = awning width

H = projection

FB = pull-out force per fixing point

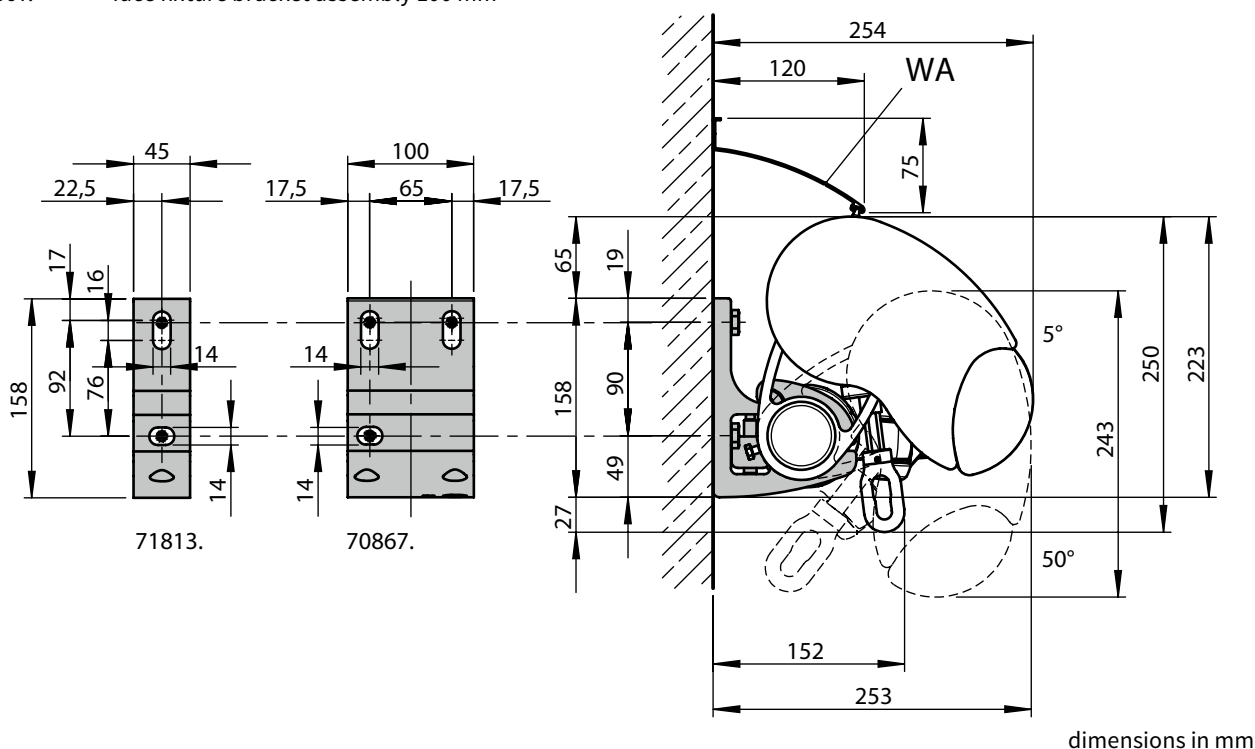
HT | BHT = bracket quantity | width

BM = no. of fixing points

WA = wall sealing profile

71813. = face fixture bracket assembly 45 mm

70867. = face fixture bracket assembly 100 mm



dimensions in mm

Face fixture with spreader plate A

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

| Compression-proof substrate | | | | | | | | | | | Non compression-proof substrate | | | | | | | | | | |
|-----------------------------|-----|-----|------|------|------|------|------|------|------|------|---------------------------------|-----|------|------|------|------|------|------|------|------|--|
| M [cm] | | | | | | | | | | | M [cm] | | | | | | | | | | |
| H [cm] | | | | | | | | | | | H [cm] | | | | | | | | | | |
| FB [N] | | | | | | | | | | | FB [N] | | | | | | | | | | |
| 150 | 260 | 297 | 334 | 370 | 407 | 443 | 480 | 517 | 553 | 420 | 370 | 422 | 474 | 526 | 578 | 630 | 682 | 734 | 786 | 597 | |
| 200 | 401 | 459 | 517 | 575 | 632 | 690 | 748 | 806 | 864 | 654 | 570 | 652 | 735 | 817 | 899 | 981 | 1063 | 1145 | 1227 | 930 | |
| 250 | - | 678 | 761 | 844 | 928 | 1011 | 1095 | 1178 | 1423 | 1076 | - | 963 | 1081 | 1200 | 1319 | 1437 | 1556 | 1674 | 2022 | 1529 | |
| 300 | - | - | 1022 | 1136 | 1249 | 1363 | 1672 | 1804 | 1936 | 1461 | - | - | 1453 | 1614 | 1775 | 1937 | 2376 | 2564 | 2751 | 2076 | |
| 350 | - | - | - | 1468 | 1833 | 2006 | 2179 | 2352 | 2525 | 1903 | - | - | - | 2087 | 2605 | 2851 | 3097 | 3343 | 3589 | 2704 | |
| 400 | - | - | - | - | 2312 | 2532 | 2752 | 2971 | - | 2401 | - | - | - | - | 3286 | 3598 | 3910 | 4222 | - | 3412 | |

| | | | | | | | | | |
|----------|------------|--|--|--|--|-------------------------|--|-------------------------|--|
| HT BHT | 2 100 mm | | | | | 2 100 mm 1 45 mm | | 3 100 mm 1 45 mm | |
|----------|------------|--|--|--|--|-------------------------|--|-------------------------|--|

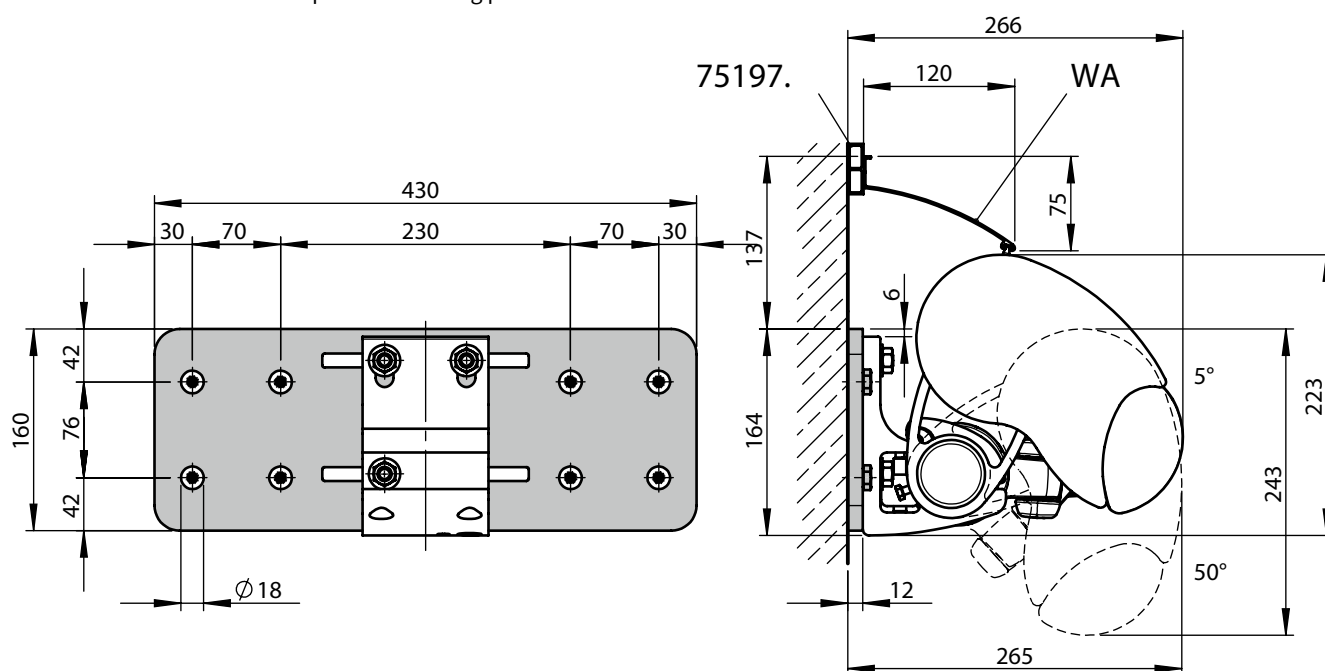
| | | | | | | | | | |
|----|----|--|--|--|--|----|--|----|--|
| BP | 2 | | | | | 2 | | 3 | |
| DP | - | | | | | 1 | | 1 | |
| BM | 16 | | | | | 18 | | 26 | |

| | | | | | | | | |
|----|--|--|--|--|----|--|----|--|
| 2 | | | | | 2 | | 3 | |
| - | | | | | 1 | | 1 | |
| 16 | | | | | 18 | | 26 | |

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **76 mm**.

In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- DP = no. of spacer plates
- BM = no. of fixing points
- WA = wall sealing profile
- 75197. = stand-off strip for wall sealing profile



dimensions in mm

Face fixture with spreader plate B

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

| H [cm] | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|-----|-----|-----|-----|------|------|------|------|------|------|
| 150 | 154 | 176 | 197 | 219 | 241 | 262 | 284 | 306 | 327 | 249 |
| 200 | 238 | 272 | 306 | 340 | 374 | 408 | 443 | 477 | 511 | 387 |
| 250 | - | 401 | 450 | 500 | 549 | 598 | 648 | 697 | 842 | 637 |
| 300 | - | - | 605 | 672 | 739 | 807 | 990 | 1068 | 1146 | 865 |
| 350 | - | - | - | 869 | 1085 | 1187 | 1290 | 1392 | 1494 | 1126 |
| 400 | - | - | - | - | 1368 | 1498 | 1628 | 1758 | - | 1421 |

Non compression-proof substrate

M [cm]

| H [cm] | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|-----|-----|-----|-----|------|------|------|------|------|------|
| 150 | 161 | 183 | 206 | 228 | 251 | 274 | 296 | 319 | 341 | 259 |
| 200 | 248 | 283 | 319 | 355 | 390 | 426 | 462 | 497 | 533 | 404 |
| 250 | - | 418 | 470 | 521 | 573 | 624 | 676 | 727 | 878 | 664 |
| 300 | - | - | 631 | 701 | 771 | 841 | 1032 | 1113 | 1195 | 902 |
| 350 | - | - | - | 906 | 1131 | 1238 | 1345 | 1452 | 1559 | 1174 |
| 400 | - | - | - | - | 1427 | 1562 | 1698 | 1834 | - | 1482 |

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

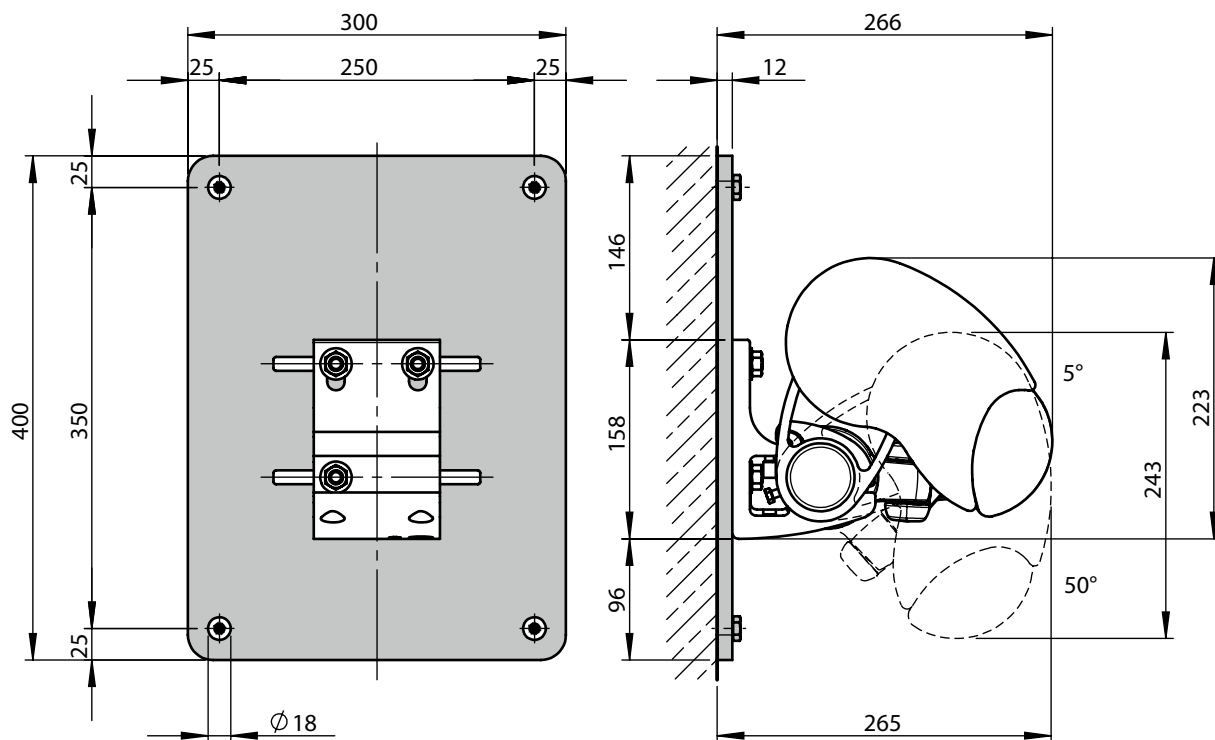
| BP | 2 | 2 | 3 |
|----|---|----|----|
| DP | - | 1 | 1 |
| BM | 8 | 10 | 14 |

| BP | 2 | 2 | 3 |
|----|---|----|----|
| DP | - | 1 | 1 |
| BM | 8 | 10 | 14 |

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **350 mm**.

In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- DP = no. of spacer plates
- BM = no. of fixing points



dimensions in mm

Face fixture with stand-off brackets

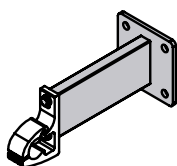
Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

| Compression-proof substrate | | | | | | | | | | | Non compression-proof substrate | | | | | | | | | | | | |
|-----------------------------|-----|------------|------|------|------|------------|------|------|------|------------|---------------------------------|------|------|------------|------|------------|------|------|------|------------|--|--|--|
| M [cm] | | | | | | | | | | | M [cm] | | | | | | | | | | | | |
| H [cm] | | | | | | | | | | | H [cm] | | | | | | | | | | | | |
| FB [N] | | | | | | | | | | | FB [N] | | | | | | | | | | | | |
| 150 | 541 | 615 | 690 | 765 | 840 | 915 | 990 | 1065 | 1139 | 867 | 608 | 692 | 777 | 861 | 945 | 1029 | 1113 | 1198 | 1282 | 976 | | | |
| 200 | 792 | 904 | 1017 | 1130 | 1243 | 1356 | 1469 | 1582 | 1694 | 1286 | 891 | 1018 | 1144 | 1271 | 1398 | 1525 | 1652 | 1779 | 1906 | 1447 | | | |
| 250 | - | 1292 | 1450 | 1608 | 1766 | 1924 | 2082 | 2240 | 2713 | 2054 | - | 1454 | 1631 | 1809 | 1987 | 2165 | 2342 | 2520 | 3052 | 2310 | | | |
| 300 | - | - | 1902 | 2112 | 2323 | 2533 | 3114 | 3359 | 3604 | 2722 | - | - | 2140 | 2376 | 2613 | 2850 | 3503 | 3779 | 4054 | 3062 | | | |
| 350 | - | - | - | 2682 | 3353 | 3669 | 3985 | 4301 | 4617 | 3481 | - | - | - | 3018 | 3772 | 4128 | 4483 | 4839 | 5194 | 3916 | | | |
| 400 | - | - | - | - | 4170 | 4566 | 4961 | 5357 | - | 4331 | - | - | - | - | 4691 | 5136 | 5582 | 6027 | - | 4872 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| HT BHT | | 2 100 mm | | | | 2 100 mm | | | | 3 100 mm | | | | 2 100 mm | | 2 100 mm | | | | 3 100 mm | | | |
| | | | | | | 1 45 mm | | | | 1 45 mm | | | | | | 1 45 mm | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| BP | | 2 | | | | 2 | | | | 3 | | | | 2 | | 2 | | | | 3 | | | |
| DP | | - | | | | 1 | | | | 1 | | | | - | | 1 | | | | 1 | | | |
| BM | | 8 | | | | 12 | | | | 16 | | | | 8 | | 12 | | | | 16 | | | |

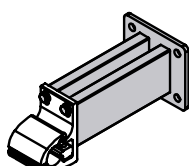
The pull-out force refers to the vertical centre to centre measurement between the fixture points of **120 mm**.

In the case of stand-off brackets washers conforming to DIN 9021 must be used.

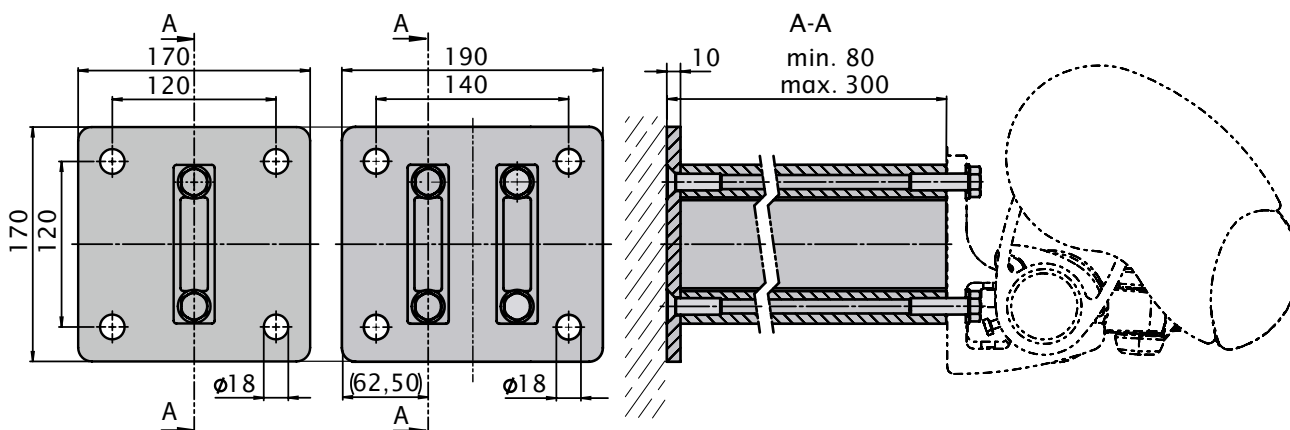
- M = awning width
H = projection
FB = pull-out force per fixing point
HT | BHT = bracket quantity | width
BM = no. of fixing points
DH = no. of stand-off brackets
77967. = stand-off bracket for face fixture bracket assembly 70813.
77968. = stand-off bracket for face fixture bracket assembly 70867.



77967.



77968.



dimensions in mm

Face fixture with shadeplus

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

| M [cm] | | | | | | | | | | |
|--------|--------|------|------|------|------|------|------|------|------|------|
| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 529 | 608 | 686 | 765 | 843 | 922 | 1000 | 1079 | 1157 | 870 |
| 200 | 802 | 922 | 1043 | 1163 | 1284 | 1404 | 1524 | 1645 | 1765 | 1327 |
| 250 | – | 1335 | 1505 | 1676 | 1846 | 2016 | 2186 | 2357 | 2808 | 2110 |
| 300 | – | – | 1998 | 2226 | 2454 | 2682 | 3252 | 3512 | 3771 | 2831 |
| 350 | – | – | – | 2850 | 3521 | 3858 | 4195 | 4532 | – | 3652 |

Non compression-proof substrate

| M [cm] | | | | | | | | | | |
|--------|--------|------|------|------|------|------|------|------|------|------|
| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
| | FB [N] | | | | | | | | | |
| | 724 | 831 | 938 | 1045 | 1153 | 1260 | 1367 | 1474 | 1582 | 1190 |
| | 1096 | 1260 | 1425 | 1590 | 1754 | 1919 | 2083 | 2248 | 2413 | 1813 |
| | – | 1824 | 2057 | 2290 | 2523 | 2755 | 2988 | 3221 | 3838 | 2884 |
| | – | – | 2731 | 3043 | 3354 | 3666 | 4444 | 4799 | 5154 | 3869 |
| | – | – | – | 3894 | 4812 | 5272 | 5733 | 6194 | – | 4990 |

| | | | | | | | | | |
|----------|------------|--|--|--|--|-------------------------|--|-------------------------|--|
| HT BHT | 2 100 mm | | | | | 2 100 mm 1 45 mm | | 3 100 mm 1 45 mm | |
|----------|------------|--|--|--|--|-------------------------|--|-------------------------|--|

| | | | | | | | | |
|------------|--|--|--|--|-------------------------|--|-------------------------|--|
| 2 100 mm | | | | | 2 100 mm 1 45 mm | | 3 100 mm 1 45 mm | |
|------------|--|--|--|--|-------------------------|--|-------------------------|--|

| | | | | | | | | | |
|----|---|--|--|--|--|---|--|----|--|
| BM | 6 | | | | | 8 | | 11 | |
|----|---|--|--|--|--|---|--|----|--|

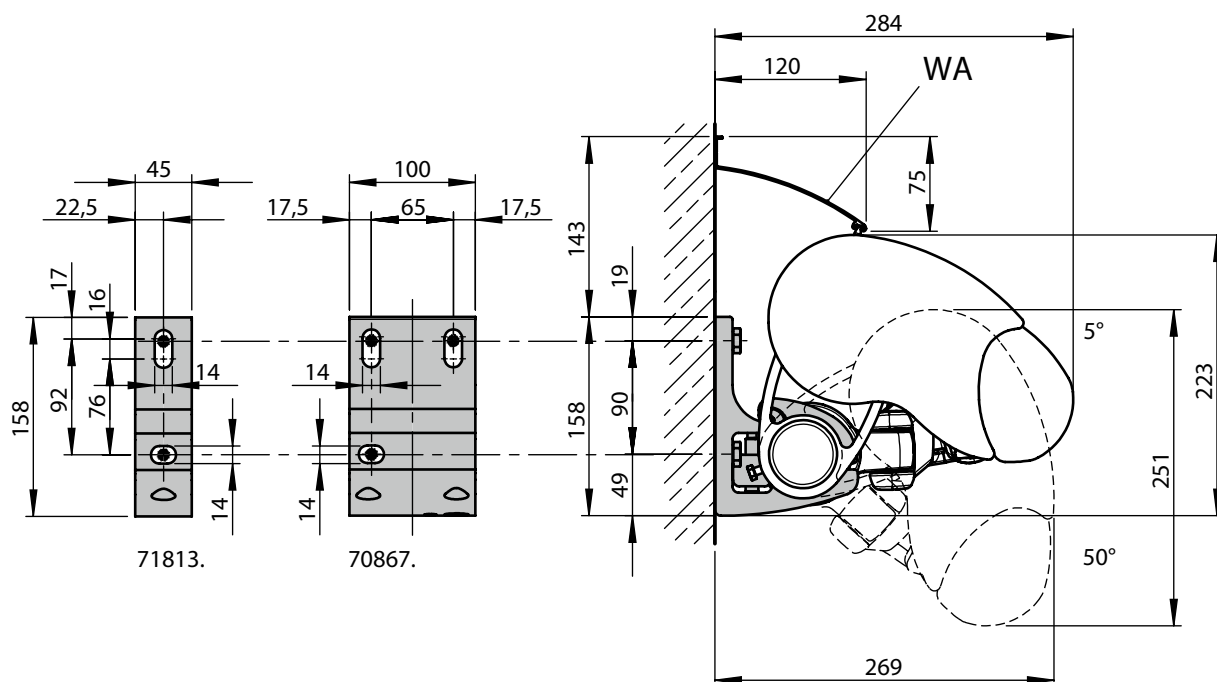
| | | | | | | | | |
|---|--|--|--|--|---|--|----|--|
| 6 | | | | | 8 | | 11 | |
|---|--|--|--|--|---|--|----|--|

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **90 mm**. If this measurement is reduced to the minimum, the pull-out force increases by **14%** in the case of **compression-proof substrates** and by **19%** in the case of **non compression-proof substrates**.

If the awning is fixed with 2 brackets per folding arm, the pull-out force can be halved.

Place the brackets immediately to the left and right of the arm bearer.

| | | | |
|----------|-----------------------------------|--------|--|
| M | = awning width | BM | = no. of fixing points |
| H | = projection | WA | = wall sealing profile |
| FB | = pull-out force per fixing point | 71813. | = face fixture bracket assembly 45 mm |
| HT BHT | = bracket quantity width | 70867. | = face fixture bracket assembly 100 mm |



dimensions in mm

Face fixture with shadeplus and spreader plate A

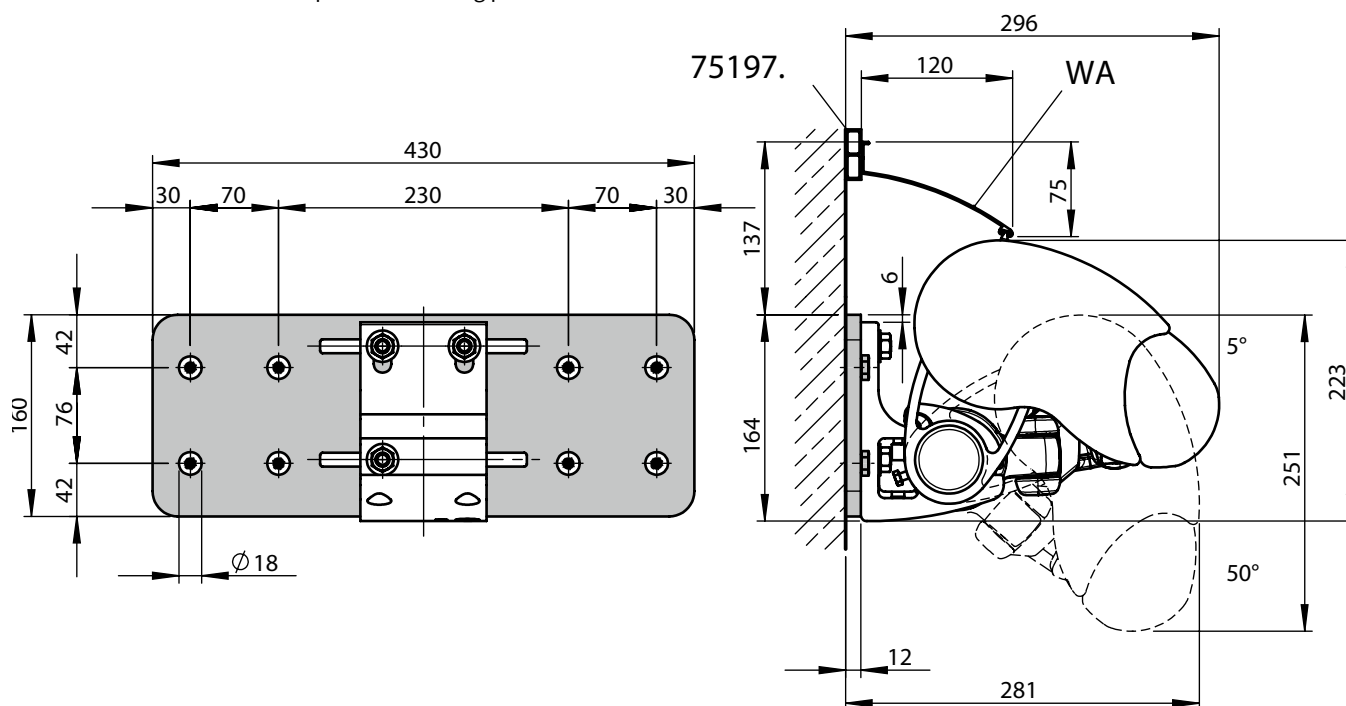
Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

| Compression-proof substrate | | | | | | | | | | | Non compression-proof substrate | | | | | | | | | | |
|-----------------------------|------------|-----|------|------|------|-------------------------|------|-------------------------|------|------|---------------------------------|------|------|------|------|-------------------------|------|-------------------------|------|------|--|
| M [cm] | | | | | | | | | | | M [cm] | | | | | | | | | | |
| H [cm] | | | | | | | | | | | H [cm] | | | | | | | | | | |
| FB [N] | | | | | | | | | | | FB [N] | | | | | | | | | | |
| 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 | | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 | |
| 150 | 305 | 350 | 395 | 441 | 486 | 531 | 576 | 621 | 667 | 501 | 434 | 498 | 562 | 626 | 690 | 755 | 819 | 883 | 947 | 712 | |
| 200 | 461 | 530 | 599 | 668 | 738 | 807 | 876 | 945 | 1014 | 722 | 655 | 753 | 851 | 950 | 1048 | 1146 | 1245 | 1343 | 1441 | 1026 | |
| 250 | - | 766 | 864 | 961 | 1059 | 1157 | 1254 | 1352 | 1611 | 1211 | - | 1089 | 1227 | 1366 | 1505 | 1644 | 1783 | 1921 | 2290 | 1721 | |
| 300 | - | - | 1145 | 1276 | 1407 | 1537 | 1864 | 2013 | 2162 | 1623 | - | - | 1628 | 1813 | 1999 | 2185 | 2649 | 2860 | 3072 | 2306 | |
| 350 | - | - | - | 1632 | 2016 | 2209 | 2403 | 2596 | - | 2091 | - | - | - | 2319 | 2866 | 3140 | 3414 | 3688 | - | 2972 | |
| HT BHT | 2 100 mm | | | | | 2 100 mm 1 45 mm | | 3 100 mm 1 45 mm | | | 2 100 mm | | | | | 2 100 mm 1 45 mm | | 3 100 mm 1 45 mm | | | |
| BP | 2 | | | | | 2 | | 3 | | | 2 | | | | | 2 | | 3 | | | |
| DP | - | | | | | 1 | | 1 | | | - | | | | | 1 | | 1 | | | |
| BM | 16 | | | | | 18 | | 26 | | | 16 | | | | | 18 | | 26 | | | |

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **76 mm**.

In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- DP = no. of spacer plates
- BM = no. of fixing points
- WA = wall sealing profile
- 75197. = stand-off strip for wall sealing profile



dimensions in mm

Face fixture with shadeplus and spreader plate B

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|-----|-----|-----|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 181 | 207 | 234 | 261 | 287 | 314 | 341 | 368 | 394 | 297 |
| 200 | 273 | 314 | 355 | 396 | 436 | 477 | 518 | 559 | 600 | 451 |
| 250 | - | 453 | 511 | 569 | 627 | 685 | 742 | 800 | 954 | 717 |
| 300 | - | - | 678 | 755 | 832 | 910 | 1103 | 1191 | 1279 | 960 |
| 350 | - | - | - | 966 | 1193 | 1308 | 1422 | 1536 | - | 1238 |

Non compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|-----|-----|------|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 188 | 216 | 244 | 272 | 300 | 328 | 356 | 383 | 411 | 309 |
| 200 | 284 | 327 | 370 | 412 | 455 | 498 | 541 | 583 | 626 | 470 |
| 250 | - | 473 | 533 | 593 | 654 | 714 | 774 | 834 | 994 | 747 |
| 300 | - | - | 707 | 787 | 868 | 949 | 1150 | 1242 | 1334 | 1001 |
| 350 | - | - | - | 1007 | 1244 | 1364 | 1483 | 1602 | - | 1291 |

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

| HT BHT | 2 100 mm | 2 100 mm 1 45 mm | 3 100 mm 1 45 mm |
|----------|------------|-------------------------|-------------------------|
|----------|------------|-------------------------|-------------------------|

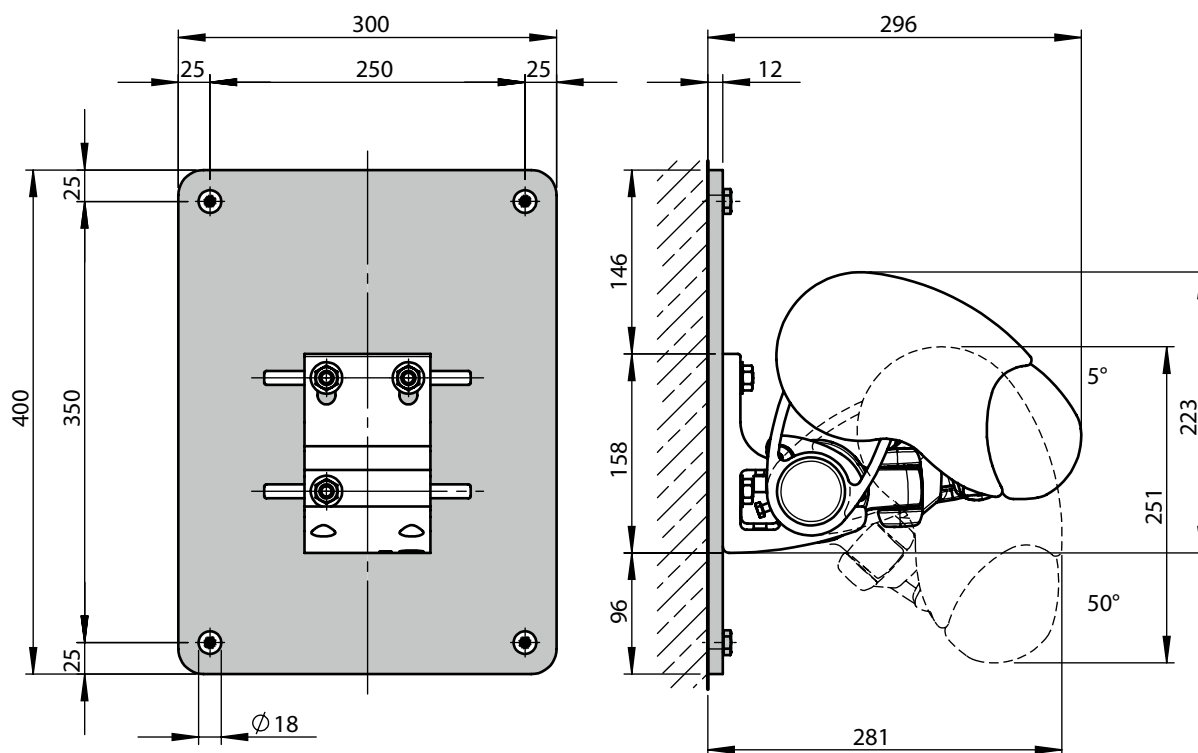
| BP | 2 | 2 | 3 |
|----|---|----|----|
| DP | - | 1 | 1 |
| BM | 8 | 10 | 14 |

| BP | 2 | 2 | 3 |
|----|---|----|----|
| DP | - | 1 | 1 |
| BM | 8 | 10 | 14 |

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **350 mm**.

In the case of spreader plates a washer conforming to DIN 9021 must be used.

- M = awning width
- H = projection
- FB = pull-out force per fixing point
- HT | BHT = bracket quantity | width
- BP = no. of spreader plates
- DP = no. of spacer plates
- BM = no. of fixing points



dimensions in mm

Face fixture for shadeplus / drop valance with stand-off brackets

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

H [cm]

FB [N]

150

488

560

633

705

777

850

922

994

1066

802

200

737

848

959

1069

1180

1291

1402

1512

1623

1220

250

-

1226

1382

1538

1694

1851

2007

2163

2578

1938

300

-

-

1833

2042

2251

2460

2982

3220

3459

2596

350

-

-

-

2611

3226

3535

3844

4153

-

3346

Non compression-proof substrate

M [cm]

H [cm]

FB [N]

549

630

712

793

874

956

1037

1118

1200

902

829

954

1079

1203

1328

1452

1577

1701

1826

1372

-

1379

1555

1730

1906

2082

2258

2434

2900

2180

-

-

2062

2297

2532

2767

3355

3623

3891

2921

-

-

-

2937

3630

3977

4325

4672

-

3764

HT | BHT

2 | 100 mm

2 | 100 mm
1 | 45 mm

3 | 100 mm
1 | 45 mm

2 | 100 mm

2 | 100 mm
1 | 45 mm

3 | 100 mm
1 | 45 mm

DH 77968.

2

2

3

DH 77967.

-

1

1

BM

8

12

16

2

2

3

-

1

1

8

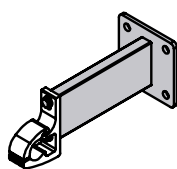
12

16

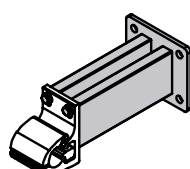
The pull-out force refers to the vertical centre to centre measurement between the fixture points of **120 mm**.

In the case of stand-off brackets washers conforming to DIN 9021 must be used.

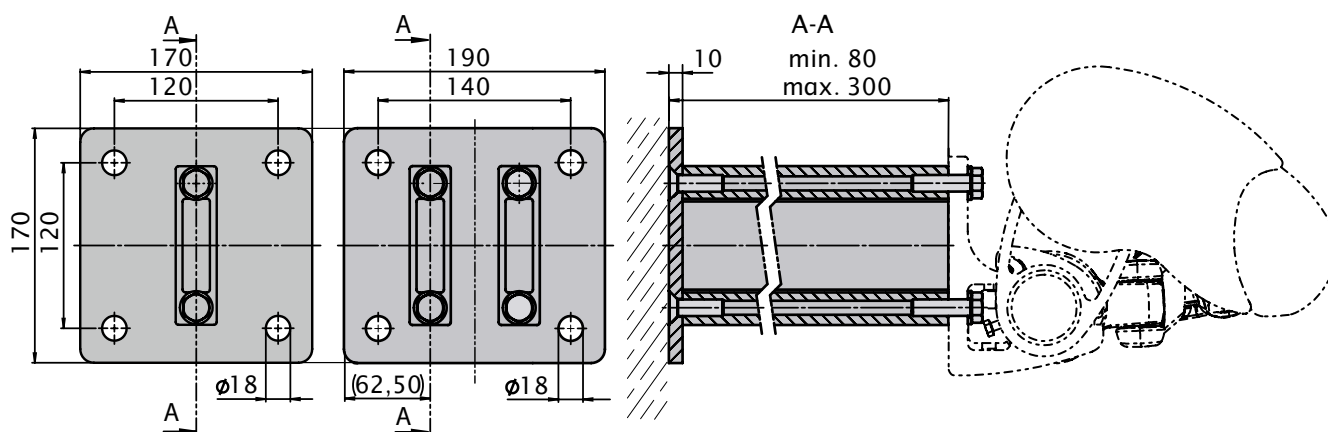
| | | | |
|----------|-----------------------------------|--------|---|
| M | = awning width | BM | = no. of fixing points |
| H | = projection | DH | = no. of stand-off brackets |
| FB | = pull-out force per fixing point | 77967. | = stand-off bracket for face fixture bracket 71813. |
| HT BHT | = bracket quantity width | 77968. | = stand-off bracket for face fixture bracket 70867. |



77967.



77968.



dimensions in mm

Top fixture

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|------|------|------|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 594 | 681 | 768 | 855 | 942 | 1029 | 1116 | 1203 | 1290 | 977 |
| 200 | 883 | 1013 | 1143 | 1273 | 1404 | 1534 | 1664 | 1794 | 1925 | 1429 |
| 250 | - | 1460 | 1643 | 1826 | 2009 | 2191 | 2374 | 2557 | 3069 | 2244 |
| 300 | - | - | 2179 | 2423 | 2668 | 2912 | 3557 | 3839 | 4121 | 2994 |
| 350 | - | - | - | 3105 | 3863 | 4230 | 4596 | 4963 | 5647 | 3856 |
| 400 | - | - | - | - | 4846 | 5308 | 5770 | 6233 | - | 4831 |

Non compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|------|------|------|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 759 | 870 | 980 | 1090 | 1200 | 1310 | 1421 | 1531 | 1641 | 1227 |
| 200 | 1138 | 1305 | 1472 | 1639 | 1806 | 1973 | 2141 | 2308 | 2475 | 1820 |
| 250 | - | 1892 | 2128 | 2364 | 2600 | 2836 | 3072 | 3308 | 3977 | 2890 |
| 300 | - | - | 2831 | 3148 | 3466 | 3783 | 4624 | 4990 | 5357 | 3874 |
| 350 | - | - | - | 4044 | 5035 | 5512 | 5989 | 6466 | 7360 | 5006 |
| 400 | - | - | - | - | 6324 | 6927 | 7530 | 8133 | - | 6285 |

| HT BHT | 2 90 mm | 2 90 mm 1 45 mm | 3 90 mm 1 45 mm |
|----------|-----------|------------------------|------------------------|
|----------|-----------|------------------------|------------------------|

| HT BHT | 2 90 mm | 2 90 mm 1 45 mm | 3 90 mm 1 45 mm |
|----------|-----------|------------------------|------------------------|
|----------|-----------|------------------------|------------------------|

| BM | 8 | 10 | 14 |
|----|---|----|----|
|----|---|----|----|

| BM | 8 | 10 | 14 |
|----|---|----|----|
|----|---|----|----|

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **80 mm**. If the awning is fitted with two brackets per folding arm the pull-out force may be halved.

Place the brackets immediately to the left and right of the arm bearer.

M = awning width

H = projection

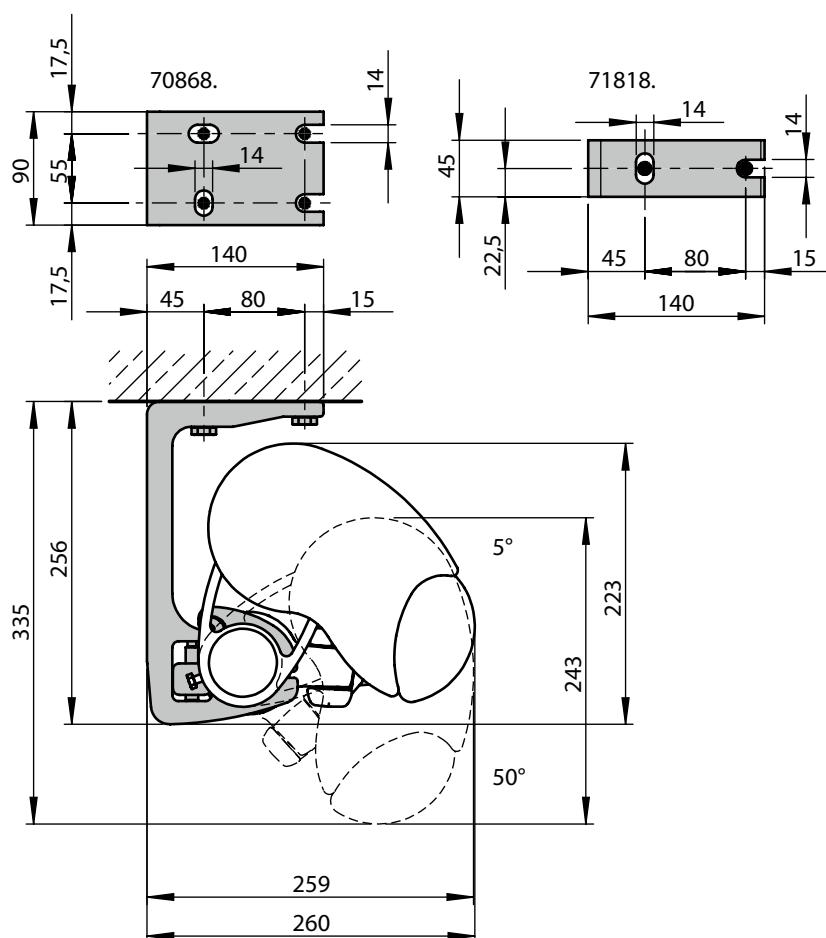
FB = pull-out force per fixing point

HT | BHT = bracket quantity | width

BM = no. of fixing points

70868. = top fixture bracket assembly 90 mm

71818. = top fixture bracket assembly 45 mm



dimensions in mm

Top fixture with shadeplus

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

| Compression-proof substrate | | | | | | | | | | | Non compression-proof substrate | | | | | | | | | | |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|---------------------------------|------|------|------|------|------|------|------|------|------|--|
| M [cm] | | | | | | | | | | | M [cm] | | | | | | | | | | |
| H [cm] | | | | | | | | | | | H [cm] | | | | | | | | | | |
| FB [N] | | | | | | | | | | | FB [N] | | | | | | | | | | |
| 150 | 685 | 790 | 894 | 999 | 1103 | 1207 | 1312 | 1416 | 1521 | 1197 | 879 | 1012 | 1145 | 1279 | 1412 | 1545 | 1678 | 1811 | 1944 | 1516 | |
| 200 | 1004 | 1158 | 1311 | 1465 | 1619 | 1772 | 1926 | 2079 | 2233 | 1731 | 1298 | 1495 | 1693 | 1891 | 2088 | 2286 | 2484 | 2682 | 2879 | 2217 | |
| 250 | - | 1641 | 1853 | 2065 | 2277 | 2489 | 2701 | 2913 | 3455 | 2650 | - | 2130 | 2404 | 2679 | 2953 | 3227 | 3502 | 3776 | 4483 | 3422 | |
| 300 | - | - | 2431 | 2711 | 2990 | 3270 | 3949 | 4266 | 4583 | 3494 | - | - | 3163 | 3526 | 3889 | 4252 | 5139 | 5551 | 5964 | 4530 | |
| 350 | - | - | - | 3441 | 4239 | 4647 | 5054 | 5461 | - | 4455 | - | - | - | 4484 | 5528 | 6059 | 6590 | 7120 | - | 5792 | |

| | | | | | | | | | |
|----------|-----------|--|--|--|--|-----------|--|-----------|--|
| HT BHT | 2 90 mm | | | | | 2 90 mm | | 3 90 mm | |
| | | | | | | 1 45 mm | | 1 45 mm | |

| | | | | | | | | |
|------------|--|--|--|--|-----------|--|-----------|--|
| 2 100 mm | | | | | 2 90 mm | | 3 90 mm | |
| | | | | | 1 45 mm | | 1 45 mm | |

| | | | | | | | | | |
|----|---|--|--|--|--|---|--|----|--|
| BM | 6 | | | | | 8 | | 11 | |
| | | | | | | | | | |

| | | | | | | | | |
|---|--|--|--|--|---|--|----|--|
| 6 | | | | | 8 | | 11 | |
| | | | | | | | | |

The pull-out force refers to the vertical centre to centre measurement between the fixture points of **80 mm**. If the awning is fitted with two brackets per folding arm the pull-out force may be halved.

Place the brackets immediately to the left and right of the arm bearer.

M = awning width

H = projection

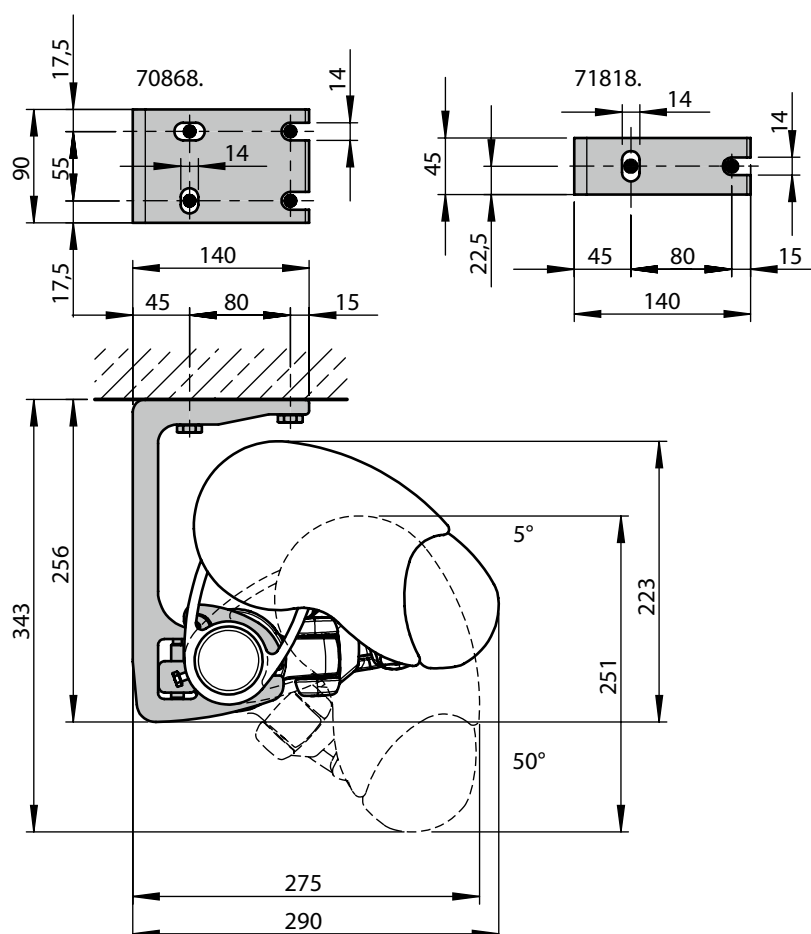
FB = pull-out force per fixing point

HT | BHT = bracket quantity | width

BM = no. of fixing points

70868. = top fixture bracket assembly 90 mm

71818. = top fixture bracket assembly 45 mm



dimensions in mm

Eaves fixture

Torque [Nm = Newton metres] for the fixture bracket in the immediate vicinity of the arm, shear force [N = Newton] per fixing point according to EN 13561, wind resistance class 2

| | | Torque M [cm] | | | | | | | | | | | | Shear force M [cm] | | | | | | | | | |
|--------|--|------------------|-----|-----|-----|-----|------|------|------|------|------|--|--|-----------------------|------|------|------|-------|-------|-------|-------|-------|-------|
| | | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 | | | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
| H [cm] | | Md [Nm] | | | | | | | | | | | | FS [N] | | | | | | | | | |
| 150 | | 111 | 127 | 142 | 158 | 174 | 189 | 205 | 221 | 236 | 179 | | | 1365 | 1563 | 1762 | 1961 | 2159 | 2358 | 2557 | 2755 | 2954 | 2347 |
| 200 | | 172 | 196 | 221 | 246 | 271 | 295 | 320 | 345 | 370 | 280 | | | 2038 | 2338 | 2637 | 2937 | 3237 | 3537 | 3836 | 4136 | 4436 | 3465 |
| 250 | | - | 290 | 326 | 362 | 398 | 433 | 469 | 505 | 610 | 461 | | | - | 3381 | 3804 | 4226 | 4649 | 5071 | 5493 | 5916 | 7106 | 5479 |
| 300 | | - | - | 439 | 487 | 536 | 585 | 717 | 774 | 831 | 627 | | | - | - | 5054 | 5620 | 6186 | 6753 | 8252 | 8906 | 9560 | 7319 |
| 350 | | - | - | - | 631 | 787 | 861 | 936 | 1010 | 1151 | 817 | | | - | - | - | 7212 | 8976 | 9827 | 10678 | 11529 | 13121 | 9433 |
| 400 | | - | - | - | - | 994 | 1088 | 1182 | 1277 | - | 1032 | | | - | - | - | - | 11269 | 12343 | 13418 | 14492 | - | 11820 |
| HT | | 2 | | | | | 3 | | | | | | | 2 | | | | | 3 | | | | |
| BM | | 8 | | | | | 12 | | | | | | | 8 | | | | | 12 | | | | |

The shear force is calculated on the basis of 2 fixing points per bracket, because – depending on the roof pitch – it cannot be guaranteed that 4 fixing points per bracket can be used.

M = awning width

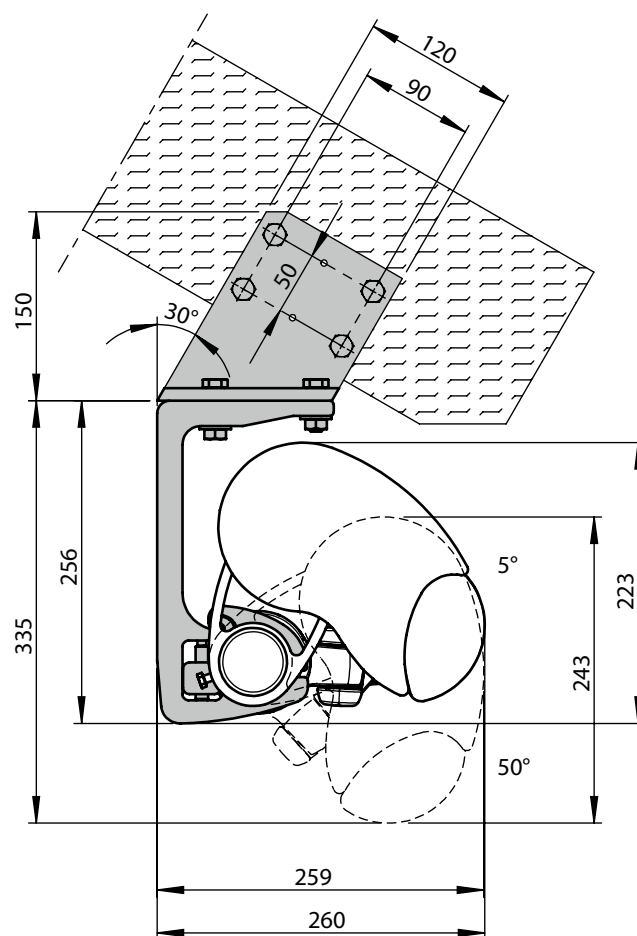
H = projection

Md = torque value for the bracket in the immediate vicinity of the arm

HT = no. of brackets

FS = shear force

BM = no. of fixing points



dimensions in mm

Eaves fixture with additional spreader / backing plate

Torque [Nm = Newton metres] for the fixture bracket in the immediate vicinity of the arm, shear force [N = Newton] per fixing point according to EN 13561, wind resistance class 2

| H [cm] | Torque M [cm] | | | | | | | | | | Shear force M [cm] | | | | | | | | | |
|---------|------------------|-----|-----|-----|-----|------|------|------|------|------|-----------------------|------|------|------|------|------|------|------|------|------|
| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
| Md [Nm] | | | | | | | | | | | FS [N] | | | | | | | | | |
| 150 | 111 | 127 | 142 | 158 | 174 | 189 | 205 | 221 | 236 | 179 | 686 | 789 | 892 | 995 | 1098 | 1201 | 1304 | 1408 | 1511 | 1251 |
| 200 | 172 | 196 | 221 | 246 | 271 | 295 | 320 | 345 | 370 | 280 | 989 | 1137 | 1286 | 1434 | 1583 | 1732 | 1880 | 2029 | 2178 | 1754 |
| 250 | - | 290 | 326 | 362 | 398 | 433 | 469 | 505 | 610 | 461 | - | 1607 | 1811 | 2015 | 2218 | 2422 | 2626 | 2830 | 3379 | 2661 |
| 300 | - | - | 439 | 487 | 536 | 585 | 717 | 774 | 831 | 627 | - | - | 2373 | 2642 | 2910 | 3179 | 3867 | 4175 | 4483 | 3489 |
| 350 | - | - | - | 631 | 787 | 861 | 936 | 1010 | 1151 | 817 | - | - | - | 3358 | 4166 | 4562 | 4959 | 5356 | 6086 | 4440 |
| 400 | - | - | - | - | 994 | 1088 | 1182 | 1277 | - | 1032 | - | - | - | - | 5198 | 5695 | 6192 | 6689 | - | 5514 |
| HT | 2 | | | | | 3 | | | | | 2 | | | | | 3 | | | | |
| BM | 4 | | | | | 6 | | | | | 4 | | | | | 6 | | | | |

By using the additional flat fixture plate, the shear force is reduced in comparison with conventional eaves fixture.

M = awning width

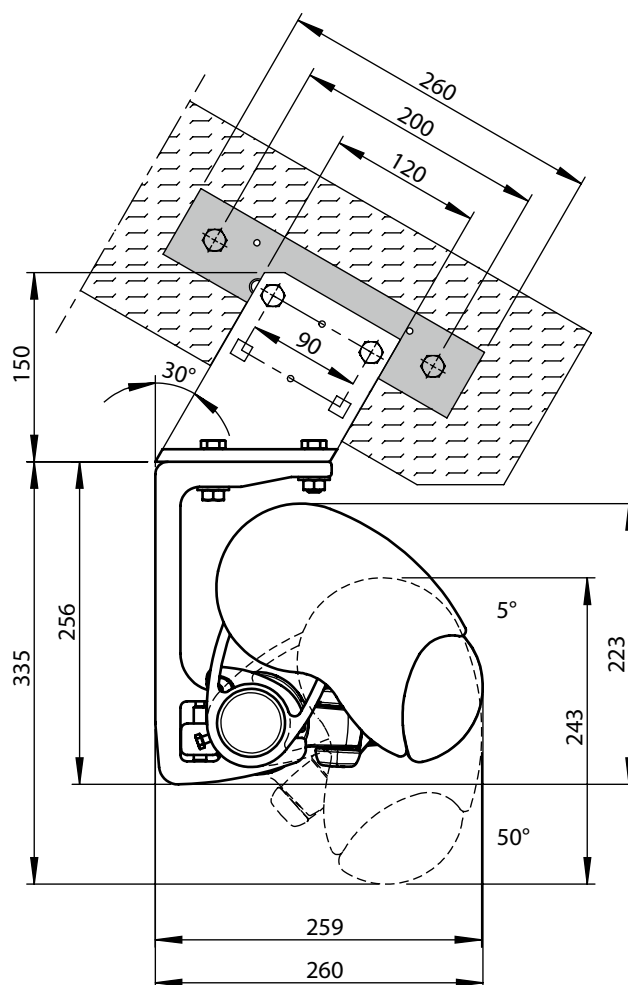
H = projection

Md = torque value for the bracket in the immediate vicinity of the arm

HT = no. of brackets

FS = shear force

BM = no. of fixing points



dimensions in mm

Installation using the adjustable eaves fixture bracket

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

Compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|------|------|------|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 896 | 1029 | 1162 | 1295 | 1427 | 1560 | 1693 | 1826 | 1959 | 1513 |
| 200 | 1314 | 1510 | 1705 | 1901 | 2096 | 2292 | 2487 | 2683 | 2879 | 2168 |
| 250 | - | 2158 | 2429 | 2701 | 2973 | 3244 | 3516 | 3787 | 4059 | 3348 |
| 300 | - | - | 3205 | 3566 | 3927 | 4288 | 4649 | 5010 | 5371 | 4434 |
| 350 | - | - | - | 4554 | 5015 | 5476 | 5937 | 6398 | 6859 | 5683 |
| 400 | - | - | - | - | 7082 | 7758 | 8434 | 9111 | - | 7094 |

Non compression-proof substrate

M [cm]

| | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 | 710 |
|--------|--------|------|------|------|------|------|------|------|------|------|
| H [cm] | FB [N] | | | | | | | | | |
| 150 | 924 | 1060 | 1197 | 1334 | 1470 | 1607 | 1743 | 1880 | 2017 | 1554 |
| 200 | 1357 | 1558 | 1760 | 1961 | 2163 | 2365 | 2566 | 2768 | 2970 | 2232 |
| 250 | - | 2229 | 2510 | 2790 | 3070 | 3351 | 3631 | 3912 | 4193 | 3455 |
| 300 | - | - | 3313 | 3686 | 4059 | 4432 | 4805 | 5178 | 5551 | 4580 |
| 350 | - | - | - | 4709 | 5182 | 5655 | 6128 | 6601 | 7074 | 5873 |
| 400 | - | - | - | - | 7326 | 8026 | 8726 | 9425 | - | 7335 |

| HT BHT | 2 90 mm | 2 90 mm 1 45 mm | 3 90 mm 1 45 mm |
|----------|-----------|------------------------|------------------------|
|----------|-----------|------------------------|------------------------|

| HT BHT | 2 90 mm | 2 90 mm 1 45 mm | 3 90 mm 1 45 mm |
|----------|-----------|------------------------|------------------------|
|----------|-----------|------------------------|------------------------|

| BM | 8 | 10 | 14 |
|----|---|----|----|
|----|---|----|----|

| BM | 8 | 10 | 14 |
|----|---|----|----|
|----|---|----|----|

The pull-out force refers to the measurement from the front to the rear fixture points of **140 mm**.

Washers conforming to DIN 9021 must be used.

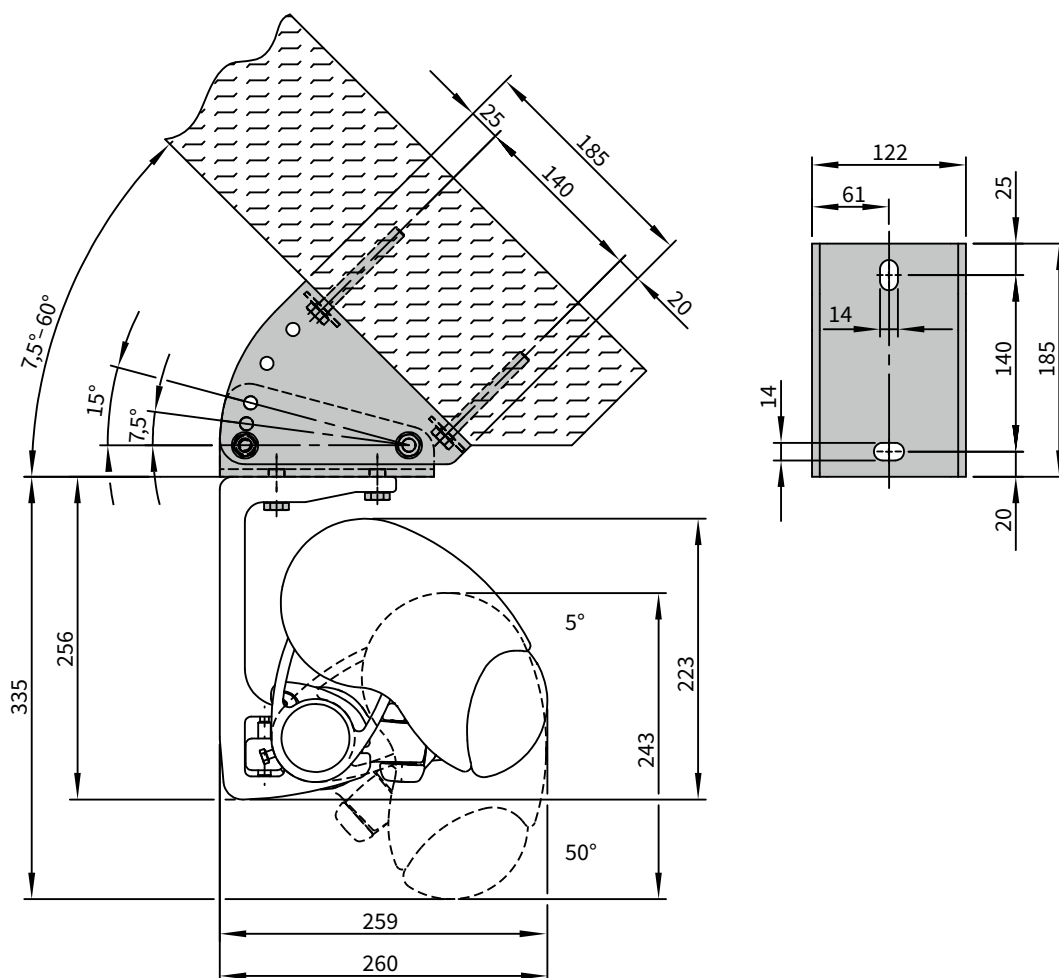
M = awning width

H = projection

FB = pull-out force per fixing point

HT | BHT = bracket quantity | width

BM = no. of fixing points



dimensions in mm

Installation with shadeplus using the adjustable eaves fixture bracket

Pull-out force [N=Newton] per upper fixing point according to EN 13561, wind resistance class 2

| Compression-proof substrate | | | | | | | | | | | Non compression-proof substrate | | | | | | | | | |
|-----------------------------|-----------|------|------|------|------|-----------|------|-----------|------|------|---------------------------------|------|------|------|------|-----------|------|-----------|------|------|
| M [cm] | | | | | | | | | | | M [cm] | | | | | | | | | |
| H [cm] | | | | | | | | | | | H [cm] | | | | | | | | | |
| FB [N] | | | | | | | | | | | FB [N] | | | | | | | | | |
| 150 | 1028 | 1186 | 1345 | 1503 | 1661 | 1819 | 1977 | 2135 | 2293 | 1832 | 1060 | 1223 | 1386 | 1549 | 1712 | 1875 | 2038 | 2201 | 2364 | 1884 |
| 200 | 1490 | 1720 | 1949 | 2178 | 2408 | 2637 | 2866 | 3096 | 3325 | 2606 | 1539 | 1775 | 2012 | 2249 | 2485 | 2722 | 2959 | 3195 | 3432 | 2686 |
| 250 | - | 2420 | 2734 | 3048 | 3362 | 3675 | 3989 | 4303 | 5094 | 3935 | - | 2501 | 2825 | 3149 | 3473 | 3798 | 4122 | 4446 | 5264 | 4063 |
| 300 | - | - | 3570 | 3982 | 4394 | 4806 | 5796 | 6262 | 6728 | 5158 | - | - | 3691 | 4117 | 4543 | 4968 | 5994 | 6475 | 6957 | 5330 |
| 350 | - | - | - | 5039 | 6203 | 6800 | 7397 | 7994 | - | 6550 | - | - | - | 5212 | 6417 | 7034 | 7651 | 8268 | - | 6771 |
| HT BHT | 2 90 mm | | | | | 2 90 mm | | 3 90 mm | | | 2 90 mm | | | | | 2 90 mm | | 3 90 mm | | |
| | | | | | | 1 45 mm | | 1 45 mm | | | | | | | | 1 45 mm | | 1 45 mm | | |
| BM | 8 | | | | | 10 | | 14 | | | 8 | | | | | 10 | | 14 | | |

The pull-out force refers to the measurement from the front to the rear fixture points of **140 mm**.

Washers conforming to DIN 9021 must be used.

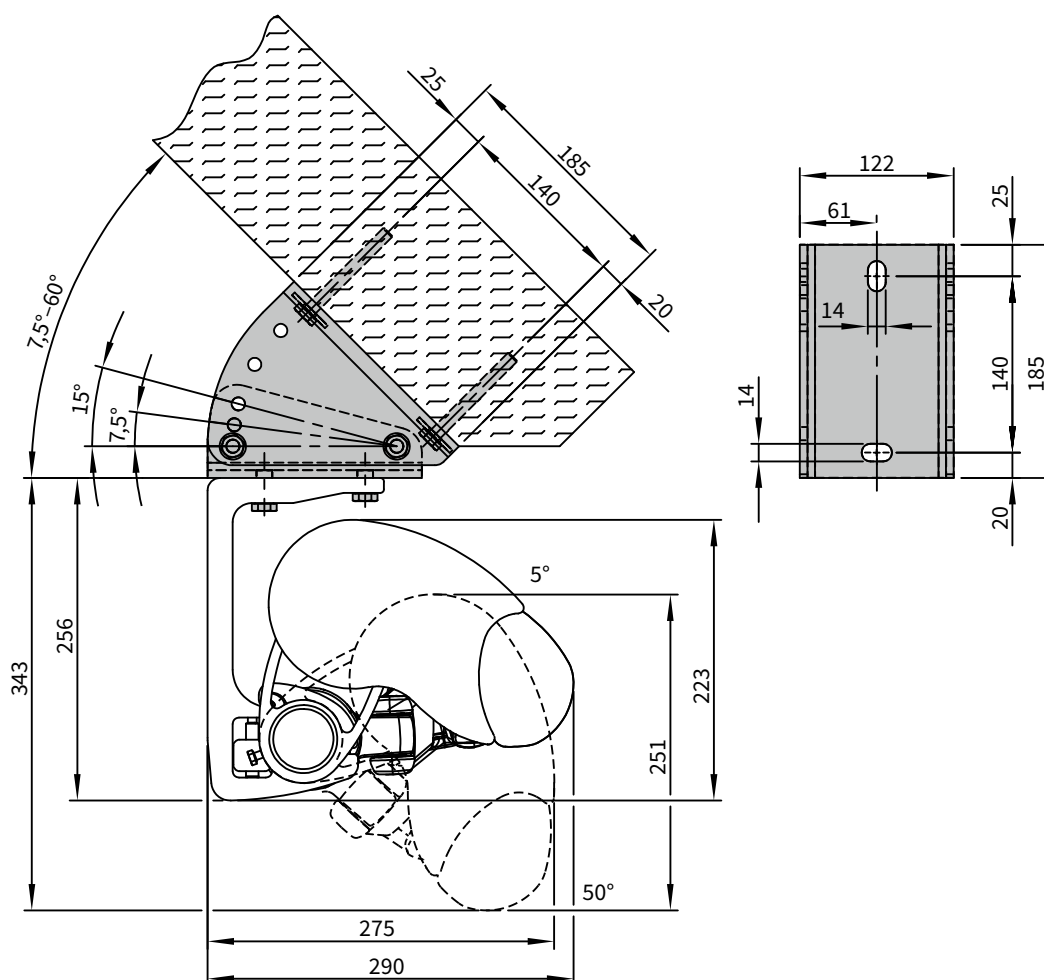
M = awning width

H = projection

FB = pull-out force per fixing point

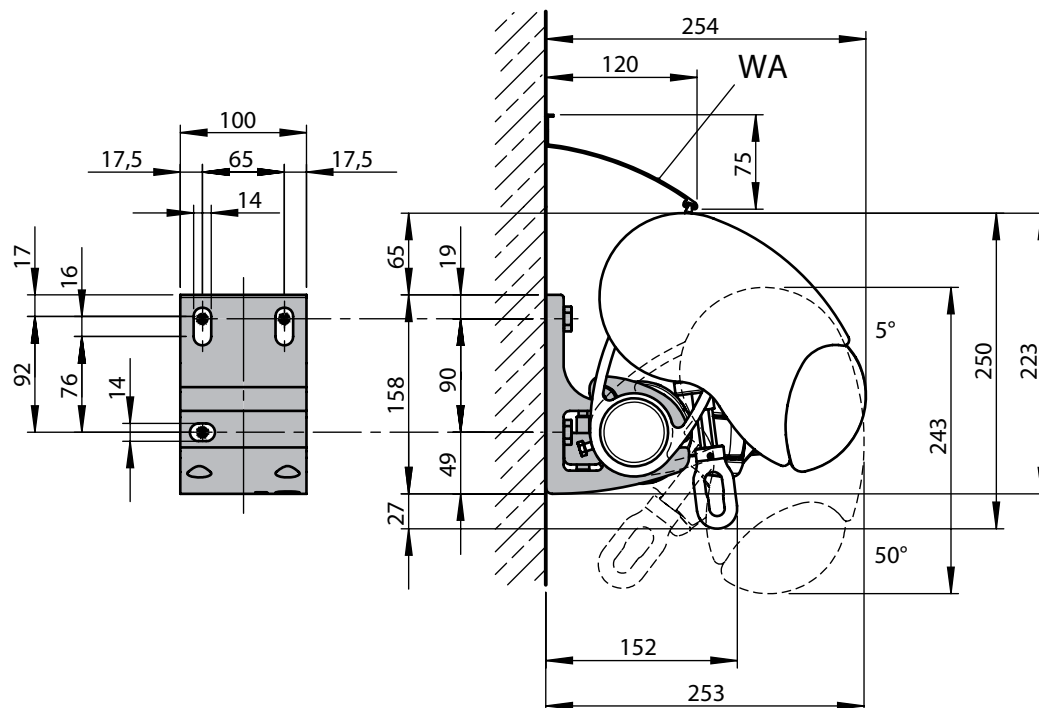
HT | BHT = bracket quantity | width

BM = no. of fixing points



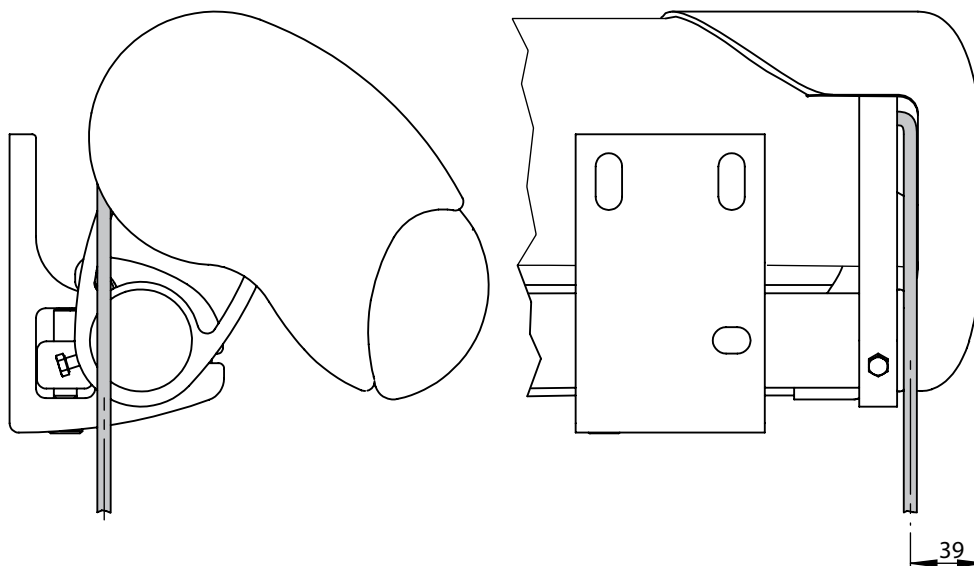
dimensions in mm

Face fixture with manual operation



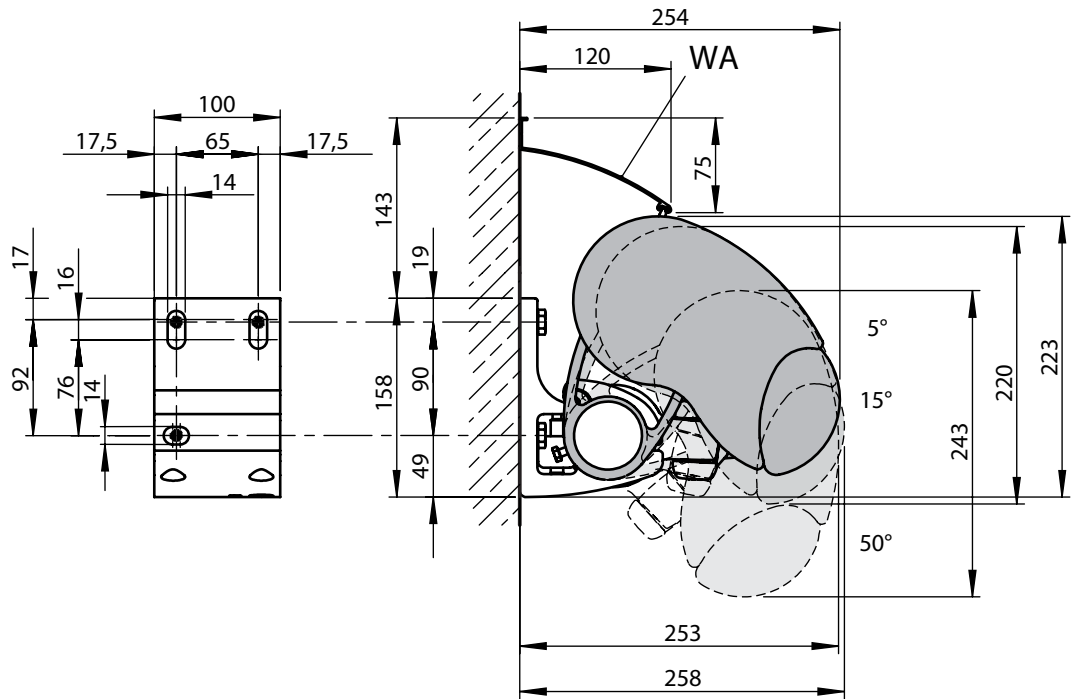
dimensions in mm

Cable exit position on motor-driven units



dimensions in mm

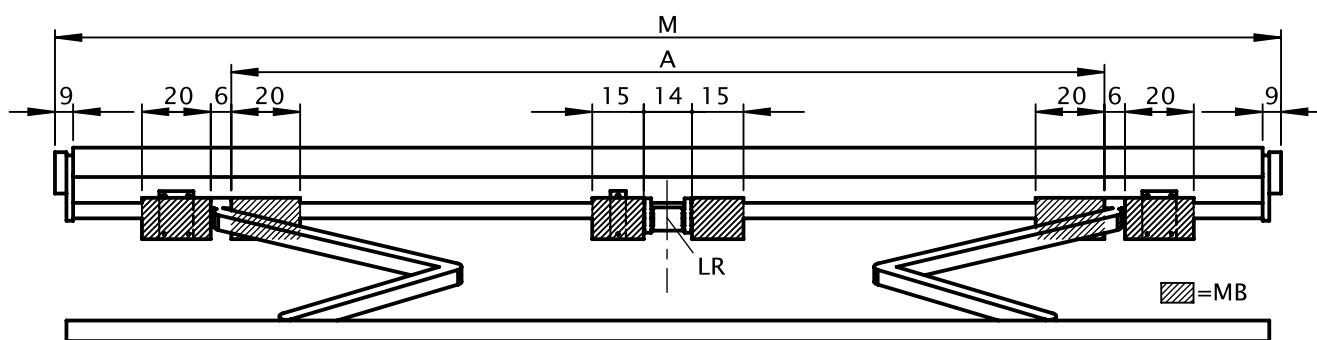
Dimensions at different awning pitches



WA = wall sealing profile

dimensions in mm

Bracket fixture range for awnings with 2 folding arms



| M [cm] | SB → | 260 | 310 | 360 | 410 | 460 | 510 | 560 | 610 | 660 |
|--------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | ZB → | 174—260 | 261—310 | 311—360 | 361—410 | 411—460 | 461—510 | 511—560 | 561—610 | 611—660 |

| H [cm] ↓ | A [cm] | | | | | | | | |
|----------|--------|-------|-------|-------|-------|------|-----|-----|-----|
| 150 | 154* | 220 | 250 | 280 | 320 | 390 | 425 | 460 | 500 |
| 200 | 204** | 204* | 250 | 280 | 320 | 390 | 425 | 460 | 500 |
| 250 | — | 254** | 254* | 280 | 320 | 390 | 425 | 460 | 500 |
| 300 | — | — | 304** | 304* | 320 | 390 | 425 | 460 | 500 |
| 350 | — | — | — | 354** | 370* | 390 | 425 | 460 | 500 |
| 400 | — | — | — | — | 404** | 425* | 425 | 460 | — |

dimensions in cm

| W | BHT ↓ | HT ↓ | |
|---|--------|------|--|
| | 45 mm | — | |
| | 100 mm | 2 | |

| DE | 45 mm | — | 1 |
|----|-------|---|---|
| | 90 mm | 2 | 2 |

| DA | 90 mm | 2 | 3 |
|----|-------|---|---|
|----|-------|---|---|

If the brackets cannot be positioned in accordance with this table, make sure the actual measurements are noted on the order form!

* = Coupled units are only available with a junction roller in the standard widths, in the case of other widths please ask us.

** = Please note the minimum widths! Dimension **A** is only valid for standard arms! Dimension **A** is 13 cm smaller in the case of bespoke arms in the case of small awnings the brackets can only be fitted inside the arms, i.e. the position denoted by measurement **A**.

A = arm position

BHT = bracket width

DA = eaves fixture

DE = top fixture

GS = cassette support bracket

H = projection

HT = no. of brackets

LR = a rolltex bearing with accompanying bracket is always placed under a central seam (depends on the awning size)

M = awning width

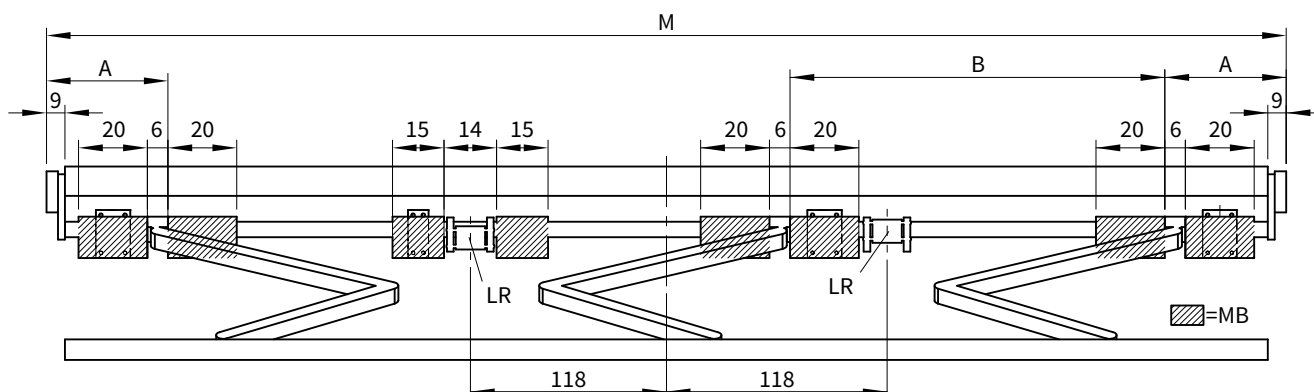
MB = bracket fixture range

SB = standard width

W = face fixture

ZB = intermediate width

Bracket fixture range for awnings with 3 folding arms



| | | |
|--------|------|---------|
| M [cm] | SB → | 710 |
| | ZB → | 661–710 |

| H [cm] ↓ | A [cm] ↓ | B [cm] ↓ |
|----------|----------|----------|
| 150 | 35 | 220 |
| 200 | 35 | 220 |
| 250 | 35 | 220 |
| 300 | 35 | 220 |
| 350 | 25 | 230 |
| 400 | 17* | 229* |

dimensions in cm

| | | |
|----------|---------------|-------------|
| | BHT ↓ | HT ↓ |
| W | 45 mm | 1 |
| | 100 mm | 3 |

| | | |
|----|-------|---|
| DE | 45 mm | 1 |
| | 90 mm | 3 |

| | | |
|----|-------|---|
| DA | 90 mm | 4 |
|----|-------|---|

If the brackets cannot be positioned in accordance with this table, make sure the actual measurements are noted on the order form!

* = Please note the minimum widths, dimension **A** is only valid for standard arms! coupled units are not available with junction roller.

A = arm position

B = arm position

BHT = bracket width

DA = eaves fixture

DE = top fixture

H = projection

HT = no. of brackets

LR = a rolltex bearing with accompanying bracket is always placed under a central seam (depends on the awning size)

M = awning width

MB = bracket fixture range

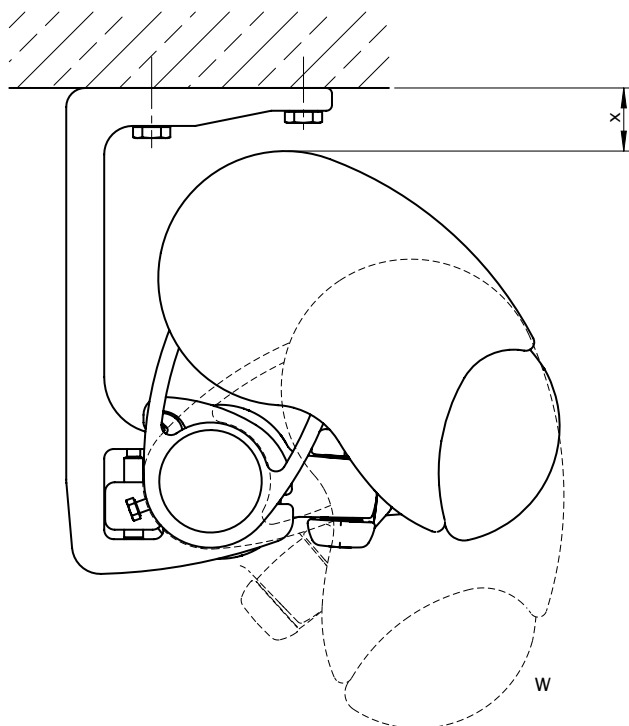
SB = standard width

W = face fixture

ZB = intermediate width

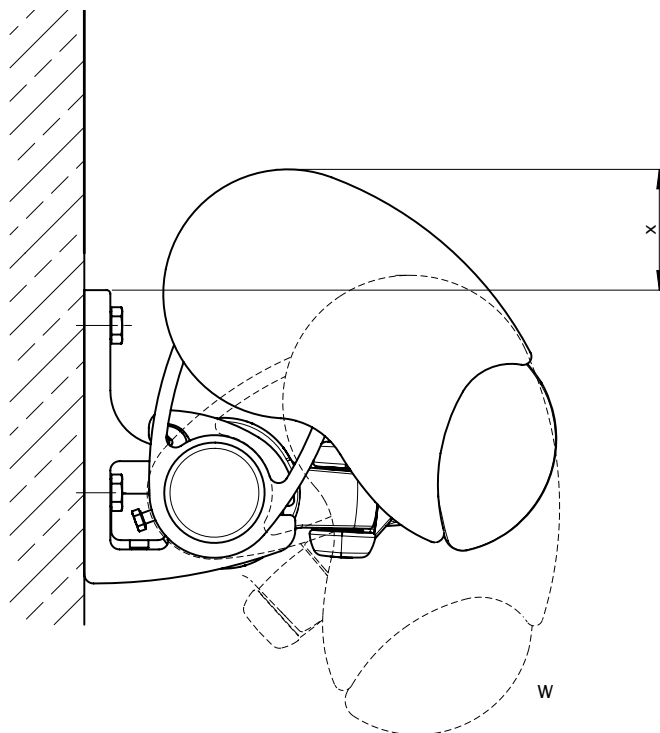
Installation dimensions at varying awning pitches

Top fixture



| pitch (W) | approx. height in mm (X) |
|--------------|-----------------------------|
| 5° | 33 |
| 10° | 34 |
| 15° | 38 |
| 20° | 44 |
| 25° | 50 |
| 30° | 57 |
| 35° | 65 |
| 40° | 73 |
| 45° | 81 |
| 50° | 90 |

Face fixture



| pitch (W) | approx. height in mm (X) |
|--------------|-----------------------------|
| 5° | 65 |
| 10° | 64 |
| 15° | 60 |
| 20° | 54 |
| 25° | 48 |
| 30° | 41 |
| 35° | 34 |
| 40° | 26 |
| 45° | 17 |
| 50° | 8 |