


Calculation based on ISO 10077-2, EN 673, EN 410


| | | | | | | |
|---|--------------|--|---|------------|-------|--------------|
| Product name: Alpen ZR-9 Sliding Glass Door Balanced-9 | | Center-of-glass properties | | | | |
| ASHRAE/IECC/ DOE North American Climate Zone | South-facing | North, East, West -facing |  | | | |
| | | Alpen High Performance Products Balanced-9 No Grids | | | | |
| Climate specific recommendations: | | Whole-window installed U-value | | Ucog-Value | | |
| | | W/m2K | BTU/hr.ft2.F | SHGC | W/m2K | BTU/hr.ft2.F |
| 8 | | 0.80 | 0.14 | 0.333 | 0.427 | 0.075 |
| 7 | | 0.80 | 0.14 | 0.333 | 0.424 | 0.075 |
| 6 | | 0.80 | 0.14 | 0.333 | 0.430 | 0.076 |
| 5 | | 0.80 | 0.14 | 0.333 | 0.431 | 0.076 |
| 4 | | 0.81 | 0.14 | 0.333 | 0.434 | 0.076 |
| Marine North | | 0.81 | 0.14 | 0.333 | 0.436 | 0.077 |
| Marine South | | 0.81 | 0.14 | 0.333 | 0.440 | 0.077 |
| 3 | | 0.81 | 0.14 | 0.333 | 0.438 | 0.077 |
| 2 West | | 0.82 | 0.14 | 0.333 | 0.448 | 0.079 |
| 2 East | | 0.82 | 0.14 | 0.333 | 0.448 | 0.079 |

| | | | | | | | | | |
|--|--|--------------|------|---------|------|------------|-------|--------------|--|
| Alpen ZR-9 Sliding Glass Door B | | FRAME | | | | Psi-spacer | | | |
| | | Frame height | | U-frame | | Ψ | | | |
| Allmetal 250P SST | | mm | | in | | W/m2K | | BTU/hr.ft2.F | |
| Horizontal two lite left | | mm | | in | | W/mK | | BTU/hr.ft.F | |
| left head | | 111 | 4.38 | 1.36 | 0.24 | 0.062 | 0.036 | | |
| left sill | | 113 | 4.44 | 1.88 | 0.33 | 0.063 | 0.036 | | |
| left jamb | | 105 | 4.12 | 1.13 | 0.20 | 0.063 | 0.036 | | |
| right MR | | 36 | 1.41 | 1.88 | 0.33 | 0.054 | 0.031 | | |
| Alpen ZR-9 Sliding Glass Door Bal | | FRAME | | | | Psi-spacer | | Psi-opaque | |
| | | Frame height | | U-frame | | Ψ | | | |
| Allmetal 250P SST | | mm | | in | | W/m2K | | BTU/hr.ft2.F | |
| Horizontal two lite right | | mm | | in | | W/mK | | BTU/hr.ft.F | |
| right head | | 111 | 4.38 | 1.26 | 0.22 | 0.062 | 0.036 | | |
| right sill | | 113 | 4.44 | 2.48 | 0.44 | 0.059 | 0.034 | | |
| right jamb | | 105 | 4.12 | 1.13 | 0.20 | 0.062 | 0.036 | | |
| left MR | | 35 | 1.38 | 0.75 | 0.13 | 0.058 | 0.034 | | |

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

Valid through January 2020

Calculation based on ISO 10077-2, EN 673, EN 410

| | | | | | | | |
|---|--------------|-------------------------------------|---|-------------------|-------|--------------|-------|
| Product name: Alpen ZR-9 Sliding Glass Door HighGain-9 | | Center-of-glass properties | | | | | |
| ASHRAE/IECC/ DOE North American Climate Zone | South-facing | North, East, West -facing |  Alpen High Performance Products HighGain-9 No Grids | | | | |
| Climate specific recommendations: | | Whole-window installed U-value | | Ucog-Value | | | |
| | | W/m2K | BTU/hr.ft2.F | SHGC | W/m2K | BTU/hr.ft2.F | |
| 8 | | 0.84 | 0.15 | 0.478 | 0.476 | 0.084 | |
| 7 | | 0.84 | 0.15 | 0.478 | 0.479 | 0.084 | |
| 6 | | 0.85 | 0.15 | 0.478 | 0.486 | 0.086 | |
| 5 | | 0.85 | 0.15 | 0.478 | 0.487 | 0.086 | |
| 4 | | 0.85 | 0.15 | 0.478 | 0.490 | 0.086 | |
| Marine North | | 0.85 | 0.15 | 0.478 | 0.493 | 0.087 | |
| Marine South | | <input checked="" type="checkbox"/> | 0.86 | 0.15 | 0.478 | 0.497 | 0.088 |
| 3 | | <input checked="" type="checkbox"/> | 0.85 | 0.15 | 0.478 | 0.495 | 0.087 |
| 2 West | | | 0.86 | 0.15 | 0.478 | 0.506 | 0.089 |
| 2 East | | | 0.86 | 0.15 | 0.478 | 0.506 | 0.089 |

| | | | | | | | |
|--|--------------|------|---------|--------------|------------|-------------|-------------|
| Alpen ZR-9 Sliding Glass Door H | FRAME | | | | Psi-spacer | | |
| | Frame height | | U-frame | | Ψ | | |
| Allmetal 250P SST | mm | in | W/m2K | BTU/hr.ft2.F | W/mK | BTU/hr.ft.F | |
| Horizontal two lite left | | | | | | | |
| left head | 111 | 4.38 | 1.36 | 0.24 | 0.061 | 0.035 | |
| left sill | 113 | 4.44 | 1.88 | 0.33 | 0.062 | 0.036 | |
| left jamb | 105 | 4.12 | 1.13 | 0.20 | 0.062 | 0.036 | |
| right MR | 36 | 1.42 | 1.87 | 0.33 | 0.054 | 0.031 | |
| Alpen ZR-9 Sliding Glass Door Hig | FRAME | | | | Psi-spacer | | Psi-opaque |
| | Frame height | | U-frame | | Ψ | | |
| Allmetal 250P SST | mm | in | W/m2K | BTU/hr.ft2.F | W/mK | BTU/hr.ft.F | W/mK |
| Horizontal two lite right | | | | | | | |
| right head | 111 | 4.38 | 1.25 | 0.22 | 0.062 | 0.036 | 0.186 |
| right sill | 113 | 4.44 | 2.48 | 0.44 | 0.059 | 0.034 | BTU/hr.ft.F |
| right jamb | 105 | 4.12 | 1.13 | 0.20 | 0.062 | 0.036 | 0.108 |
| left MR | 35 | 1.37 | 0.75 | 0.13 | 0.057 | 0.033 | Grade C |

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

Valid through January 2020