



WALMER ENERGY

Double-sided vertical solar panels





Overview

What is a double sided solar panel?

By “double-sided solar panel”, we mean two solar panels mechanically connected to each other, with the working surface of one panel oriented to the East, and the working surface of the second panel oriented to the West. Both panels are installed in a sealed aluminium frame for reliable fixation.

What is a double sided PV panel?

For double-sided panels with an “East-West” orientation on vertical stationary PV-modules, the maximum values of the cosines of the angles of incidence of the Sun’s rays on the surface of such a panel will occur in the morning and in the evening.

How bifacial solar panels work?

Bifacial solar panels capture light not only from the front of the panel but also from the back. With double-sided solar panels (PV), we increase the electricity yield by about 5 to 15%. We are developing knowledge and technology for bifacial solar panels and a complete model that predicts energy yields.

Are bifacial solar panels better than single-sided solar panels?

While modern solar panel performance has improved dramatically across the board, bifacial panels can generate up to 30% more electricity than traditional single-sided panels in optimal conditions. This increased production comes from their ability to capture light on both sides of the panel.



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Predicting Energy Yield with BigeyeThermal Model Tested with Digital TwinKnowledge and TechnologyOur experts are working on various new bifacial solar cell concepts with the aim of increasing efficiency and simultaneously reducing manufacturing costs. One of the bifacial cell concepts we have developed successfully, is an industrial version of the so-called TOPCon solar cell. This cell has special intermediate layers on the back, consisting of See more on tno .rcimgcol .cico { background: #f5f5f5; } .b_drk .rcimgcol .cico, .b_dark .rcimgcol .cico { background: unset; } .b_imgSet .b_hList li.square_m, .b_imgSet .b_hList li.tall_m { width: 75px } .b_imgSet .b_hList li.tall_m { width: 113px } .b_imgSet .b_hList li.tall_m { width: 96px } .b_imgSet .b_hList li.wide_m { width: 128px } .b_imgSet .b_Card .b_hList li { padding-left: 1px; padding-right: 9px } .b_imgSet .b_Card .b_hList li.tall_wfn { width: 80px; padding-right: 6px } .b_imgSet .b_Card .b_hList li:last-child { padding-right: 1px } .b_imgSet .b_Card .b_imgSetData { padding: 0 8px 8px; height: 40px } .b_imgSet .b_Card .b_imgSetItem { box-shadow: 0 0 0 1px rgba(0, 0, 0, .05), 0 2px 3px 0 rgba(0, 0, 0, .1); border-radius: 6px; overflow: hidden } .b_imgSet .b_imgSetData p a { color: #444; outline-offset: 0 } .b_subModule .b_clearfix .b_mhdr .b_floatR .b_moreLink, .b_subModule .b_clearfix .b_mhdr .b_floatR .b_moreLink:visited, .b_subModule > .b_moreLink, .b_subModule > .b_moreLink:visited { color: #767676 } .b_imgSet .cico .b_placeholder { display: flex; justify-content: center; background-color: #f5f5f5; background-clip: content-box } .b_imgSet .cico .b_placeholder a { display: flex } .b_imgSet .cico .b_placeholder a img { width: 48px; height: 48px; margin: auto } @media (max-width: 1362.9px) { #b_context .b_entityTP .b_imgSet li:nth-child(5) { display: none } .b_imgSet .b_hList li.wide_m:nth-child(3) { display: none } } @media (max-width: 1274.9px) { #b_context .b_entityTP .b_imgSet li:nth-child(4) { display: none } .b_imgSet .b_hList li.wide_m:nth-child(2) { display: none } } .rcimgcol .b_imgSet { content-visibility: auto; contain-intrinsic-size: 1px 124px } .rcimgcol { height: 108px; padding-top: var(--smtc-gap-between-content-x-small); padding-bottom: var(--smtc-gap-between-content-x-small) } .b_algo:has(.b_agh) .rcimgcol { padding-top: var(--smtc-gap-between-content-xx-small) } .rcimgcol .b_imgSet { overflow: hidden } .rcimgcol .b_imgSet ul { overflow-x: auto; overflow-y: hidden; white-space: nowrap; padding-left: var(--mai-smtc-padding-card-default) } .rcimgcol .b_imgSet ul:: -webkit-scrollbar { -webkit-appearance: none } .rcimgcol .b_imgSet .b_hList > li { padding-



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