GLOBAL SOLAR ATLAS

BY WORLD BANK GROUP

Laksar

29.737194°, 078.013861° NH334A, Laksar, Uttarakhand, India Time zone: UTC+05:30, Asia/Kolkata [IST]

Neport generated: 23 Feb 2024

SITE INFO Map data Per year Map Specific photovoltaic **PVOUT 1498.3** kWh/kWp power output specific Direct normal irradiation DNI 1260.8 kWh/m² Global horizontal GHI **1735.3** kWh/m² irradiation Diffuse horizontal DIF **897.3** kWh/m² irradiation Global tilted irradiation at GTI opta **1903.3** kWh/m² optimum angle Optimum tilt of PV modules OPTA 27 / 180 Air temperature TEMP 24.0 Terrain elevation ELE **236** m **PVOUT** map Horizon and sunpath Solar azimuth [°] 180 225 270 315 360 45 90 135 900 12h 75 11h Solar elevation [°] 10h 15h 9h 16h 8h 17h 18h 300 km 15 200 mi Leaflet | PVOUT map © 2024 Solargis PVOUT: Long-term average of annual totals of PV power potential kWh/kWp North South North East West 1200 1400 1600 1800 2000 2200 1000 Terrain horizon IST (UTC+05:30) Active area · · Solar time June solstice December solstice Equinox





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PV ELECTRICITY AND SOLAR RADIATION Average hourly profiles **Annual averages** Direct normal irradiation Direct normal irradiation [Wh/m²] Feb Jan Mar Apr 1260.3 kWh/m² per year Monthly averages Direct normal irradiation May Jun Jul Aug 200 150 [kWh/m²] 12 24 100 Oct Nov Dec Sep 50 12 (g) (g) Not W. 16, 14 - 18 , er no no nec 201 UTC+05:30 **Average hourly profiles** Direct normal irradiation [Wh/m²] Feb Mar Jul Oct Apr May Jun Aug Sep Nov Dec 0 - 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6 6 - 7 7 - 8 8 - 9 9 - 10 10 - 11 11 - 12 12 - 13 13 - 14 14 - 15 15 - 16 16 - 17 17 - 18 18 - 19 19 - 20 20 - 21 21 - 22 22 - 23 23 - 24 2 54 121 188 16 132 243 340 422 471 494 474 418 330 217 85 14 79 160 235 300 336 355 364 352 313 249 47 267 409 509 579 29 67 114 173 213 234 247 237 204 162 110 51 58 268 394 487 546 564 557 512 423 305 145 290 388 465 512 526 509 444 345 179 182 275 352 403 436 439 416 350 276 164 13 98 232 317 396 452 460 57 145 202 271 329 359 357 311 233 443 504 523 506 455 367 214 249 284 312 326 311 274 209 424 349 203 18 2,329 3,815 4,865 4,875 2,996 1,848 2,532 3,385 3,589 2,950 4,137 4,184 Sum





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GLOSSARY

Acronym	Full name	Unit	Type of use
DIF	Diffuse horizontal irradiation	kWh/m², MJ/m²	Average yearly, monthly or daily sum of diffuse horizontal irradiation (© 2023 Solargis)
DNI	Direct normal irradiation	kWh/m², MJ/m²	Average yearly, monthly or daily sum of direct normal irradiation (© 2023 Solargis)
ELE	Terrain elevation	m, ft	Elevation of terrain surface above/below sea level, processed and integrated from SRTM-3 data and related data products (SRTM v4.1 © 2004 - 2023, CGIAR-CSI)
GHI	Global horizontal irradiation	kWh/m², MJ/m²	Average annual, monthly or daily sum of global horizontal irradiation (© 2023 Solargis)
GTI	Global tilted irradiation	kWh/m², MJ/m²	Average annual, monthly or daily sum of global tilted irradiation (© 2023 Solargis)
GTI_opta	Global tilted irradiation at optimum angle	kWh/m², MJ/m²	Average annual, monthly or daily sum of global tilted irradiation for PV modules fix-mounted at optimum angle (© 2023 Solargis)
ОРТА	Optimum tilt of PV modules	0	Optimum tilt of fix-mounted PV modules facing towards Equator set for maximizing GTI input (© 2023 Solargis)
PVOUT_total	Total photovoltaic power output	kWh, MWh, GWh	Yearly and monthly average values of photovoltaic electricity (AC) delivered by the total installed capacity of a PV system (© 2023 Solargis)
PVOUT_specific	Specific photovoltaic power output	kWh/kWp	Yearly and monthly average values of photovoltaic electricity (AC) delivered by a PV system and normalized to 1 kWp of installed capacity (© 2023 Solargis)
TEMP	Air temperature	°C, °F	Average yearly, monthly and daily air temperature at 2 m above ground. Calculated from outputs of ERA5 model (© 2023 ECMWF, post-processed by Solargis)

ABOUT

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Sources: Solar database and PV software @ 2024 Solargis





