

# Energiedaten für die Klimatechnik

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# Klimadaten für die Energietechnik

| mitgeteilt von der Schweizerischen Meteorologischen Anstalt |                   |               | A P R I L 1983 |                                  |                            |               |                    |                         |               |            | M A I 1983    |                |                                  |                            |               |                    |                         |               |            |               |                |
|---|-------------------|---------------|----------------|----------------------------------|----------------------------|---------------|--------------------|-------------------------|---------------|------------|---------------|----------------|----------------------------------|----------------------------|---------------|--------------------|-------------------------|---------------|------------|---------------|----------------|
| Klimaregion   | Station           | Höhe / m ü.M. | Lage           | Lufttemperatur $T_{\text{Luft}}$ | Heizgradtage $HGT_{20/12}$ |               | Heiztage $HT_{12}$ | Globalstrahlung $G_H$   |               | Somme $SS$ |               | Wind $v$       | Lufttemperatur $T_{\text{Luft}}$ | Heizgradtage $HGT_{20/12}$ |               | Heiztage $HT_{12}$ | Globalstrahlung $G_H$   |               | Somme $SS$ |               | Wind $v$       |
|   |                   |               |                | Mittel 0,1°C                     | Summe °C · Tage            | in % der Norm | Summe Tage         | Summe MJ/m <sup>2</sup> | in % der Norm | Summe Std. | in % der Norm | Mittel 0,1 m/s | Mittel 0,1°C                     | Summe °C · Tage            | in % der Norm | Summe Tage         | Summe MJ/m <sup>2</sup> | in % der Norm | Summe Std. | in % der Norm | Mittel 0,1 m/s |
| ①   | BASEL-BINNINGEN   | 316 A         |                | 100                              | 227                        | -             | 19                 | 361                     | -             | 97         | 66            | 27             | 114                              | 192                        | -             | 19                 | 418                     | -             | 105        | 64            | 22             |
|   | FAHY              | 596 F         |                | 78                               | 346                        | -             | 27                 | 334                     | -             | 79         | 61            | 29             | 94                               | 304                        | -             | 27                 | 378                     | -             | 79         | 56            | 28             |
|   | RUENENBERG        | 610 A         |                | 81                               | 321                        | -             | 25                 | 386                     | -             | 94         | -             | 33             | 97                               | 274                        | -             | 24                 | 413                     | -             | 92         | -             | 24             |
| ②   | CHASSERAL         | 1599 G        |                | 12                               | 564                        | -             | 30                 | 351                     | -             | 80         | 50            | 58             | 27                               | 538                        | -             | 31                 | 350                     | -             | 62         | 37            | 41             |
|   | LA CHAU DE FONDS  | 1018 M        |                | 50                               | 449                        | -             | 30                 | 369                     | -             | 79         | 56            | 28             | 65                               | 412                        | -             | 30                 | 364                     | -             | 69         | 48            | 25             |
|   | LA DOLE           | 1670 G        |                | 7                                | 579                        | -             | 30                 | 347                     | -             | 60         | 41            | 102            | 26                               | 540                        | -             | 31                 | 385                     | -             | 48         | 29            | 79             |
|   | LA FRETAZ         | 1202 S        |                | 38                               | 485                        | -             | 30                 | 365                     | -             | 75         | 48            | 24             | 56                               | 441                        | -             | 30                 | 347                     | -             | 65         | 39            | 21             |
| ③   | GUETTINGEN        | 440 A         |                | 87                               | 321                        | -             | 27                 | 393                     | -             | 124        | 72            | 24             | 105                              | 223                        | -             | 20                 | 443                     | -             | 143        | 74            | 23             |
|   | KLOTEN            | 436 F         |                | 90                               | 294                        | -             | 25                 | 399                     | -             | 100        | 63            | 25             | 108                              | 218                        | -             | 20                 | 450                     | -             | 120        | 70            | 21             |
|   | ST. GALLEN        | 779 T         |                | 79                               | 325                        | -             | 24                 | 418                     | -             | 106        | 70            | 31             | 95                               | 262                        | -             | 21                 | 452                     | -             | 120        | 70            | 27             |
|   | SCHAFFHAUSEN      | 437 E         |                | 89                               | 298                        | -             | 25                 | 373                     | -             | 99         | 68            | 40             | 106                              | 232                        | -             | 21                 | 426                     | -             | 113        | 70            | 34             |
|   | TAENIKON          | 536 F         |                | 86                               | 322                        | -             | 27                 | 408                     | -             | 93         | 61            | 21             | 105                              | 215                        | -             | 19                 | 471                     | -             | 100        | 58            | 20             |
|   | WAEDENSWIL        | 463 E         |                | 93                               | 255                        | -             | 20                 | 428                     | -             | 104        | 69            | 19             | 109                              | 211                        | -             | 19                 | 483                     | -             | 120        | 71            | 21             |
| ZUERICH MZA   | 556 S             |               | 91             | 265                              | -                          | 21            | 386                | -                       | 100           | 61         | 25            | 106            | 216                              | -                          | 19            | 449                | -                       | 120           | 66         | 21            |                |
| ④   | BERN-LIEBEFELD    | 565 F         |                | -                                | -                          | -             | -                  | -                       | -             | -          | -             | -              | -                                | -                          | -             | -                  | -                       | -             | -          | -             | -              |
|   | LUZERN            | 456 F         |                | 82                               | 316                        | -             | 25                 | 373                     | -             | 92         | 57            | 22             | 100                              | 250                        | -             | 22                 | 407                     | -             | 92         | 50            | 18             |
|   | WYNAU             | 422 M         |                | 95                               | 247                        | -             | 20                 | 403                     | -             | 105        | 74            | 19             | 112                              | 202                        | -             | 19                 | 437                     | -             | 103        | 70            | 15             |
| ⑤   | CHANGINS          | 430 A         |                | 86                               | 324                        | -             | 27                 | 340                     | -             | 86         | 43            | 25             | 107                              | 237                        | -             | 23                 | 393                     | -             | 81         | 41            | 21             |
|   | GENEVE-COINTRIN   | 420 F         |                | 89                               | 309                        | -             | 26                 | 374                     | -             | 84         | 42            | 27             | 112                              | 213                        | -             | 21                 | 426                     | -             | 83         | 41            | 22             |
|   | NEUCHATEL         | 485 A         |                | 88                               | 308                        | -             | 26                 | 348                     | -             | 96         | 55            | 28             | 106                              | 226                        | -             | 21                 | 383                     | -             | 96         | 51            | 24             |
|   | PAYERNE           | 490 A         |                | 81                               | 344                        | -             | 28                 | 397                     | -             | 104        | 66            | 28             | 101                              | 274                        | -             | 26                 | 427                     | -             | 99         | 50            | 24             |
|   | PULLY             | 461 S         |                | 88                               | 318                        | -             | 27                 | 346                     | -             | 76         | 42            | 15             | 110                              | 217                        | -             | 21                 | 426                     | -             | 85         | 44            | 14             |
| ⑥   | GLARUS            | 515 T         |                | 94                               | 251                        | -             | 19                 | 405                     | -             | 107        | 79            | 35             | 107                              | 228                        | -             | 20                 | 440                     | -             | 102        | 65            | 31             |
|   | SAENTIS           | 2490 G        |                | -33                              | 700                        | -             | 30                 | 550                     | -             | 103        | 68            | 67             | -15                              | 667                        | -             | 31                 | 605                     | -             | 103        | 73            | 73             |
|   | VADUZ             | 460 F         |                | 109                              | 195                        | -             | 15                 | 420                     | -             | 112        | 75            | 36             | 120                              | 193                        | -             | 18                 | 456                     | -             | 108        | 66            | 27             |
|   |                   |               |                |                                  |                            |               |                    |                         |               |            |               |                |                                  |                            |               |                    |                         |               |            |               |                |
| ⑦   | ALTDORF           | 449 F         |                | 104                              | 216                        | -             | 17                 | 429                     | -             | 122        | 74            | 55             | 114                              | 196                        | -             | 18                 | 456                     | -             | 113        | 67            | 37             |
|   | ENGELBERG         | 1035 T        |                | 64                               | 394                        | -             | 28                 | 436                     | -             | 111        | 79            | 26             | 78                               | 365                        | -             | 29                 | 472                     | -             | 109        | 71            | 19             |
|   | GUETSCH           | 2287 S        |                | -31                              | 694                        | -             | 30                 | 515                     | -             | 47         | 31            | 90             | -7                               | 643                        | -             | 31                 | 578                     | -             | 62         | 39            | 75             |
|   | NAPF              | 1407 G        |                | 37                               | 488                        | -             | 30                 | 354                     | -             | 76         | 67            | 36             | 50                               | 460                        | -             | 30                 | 391                     | -             | 74         | 58            | 34             |
|   | PILATUS           | 2106 G        |                | -7                               | 620                        | -             | 30                 | 410                     | -             | 81         | -             | 67             | 9                                | 593                        | -             | 31                 | 441                     | -             | 81         | -             | 64             |
| ⑧   | AIGLE             | 381 F         |                | 92                               | 288                        | -             | 24                 | 411                     | -             | 95         | 58            | 31             | 111                              | 214                        | -             | 21                 | 438                     | -             | 86         | 46            | 23             |
|   | INTERLAKEN        | 580 F         |                | 84                               | 315                        | -             | 25                 | 398                     | -             | 102        | 57            | 23             | 100                              | 248                        | -             | 22                 | 448                     | -             | 119        | 66            | 20             |
|   | JUNGFRAUJOCH      | 3580 P        |                | -107                             | 920                        | -             | 30                 | 456                     | -             | 52         | 32            | 96             | -82                              | 874                        | -             | 31                 | 554                     | -             | 77         | 50            | 87             |
|   | MOLESON           | 1972 G        |                | -4                               | 612                        | -             | 30                 | 398                     | -             | 81         | -             | 72             | 15                               | 574                        | -             | 31                 | 474                     | -             | 91         | -             | 66             |
| ⑨   | CHUR-EMS          | 555 F         |                | 95                               | 232                        | -             | 18                 | 445                     | -             | 91         | 61            | 45             | 108                              | 220                        | -             | 19                 | 458                     | -             | 83         | 57            | 36             |
|   | DAVOS             | 1590 A        |                | 24                               | 530                        | -             | 30                 | 518                     | -             | 76         | 55            | 26             | 45                               | 481                        | -             | 31                 | 525                     | -             | 72         | 55            | 27             |
|   | DISENTIS          | 1190 S        |                | 50                               | 450                        | -             | 30                 | 381                     | -             | 60         | 39            | 14             | 68                               | 402                        | -             | 30                 | 406                     | -             | 72         | 45            | 12             |
|   | HINTERREIN        | 1611 F        |                | 12                               | 564                        | -             | 30                 | 417                     | -             | 28         | 37            | 46             | 39                               | 499                        | -             | 31                 | 444                     | -             | 54         | 46            | 35             |
|   | WEISSFLUHOCH      | 2690 G        |                | -46                              | 739                        | -             | 30                 | 577                     | -             | 93         | 58            |                | -20                              | 683                        | -             | 31                 | 640                     | -             | 92         | 56            |                |
|   |                   |               |                |                                  |                            |               |                    |                         |               |            |               |                |                                  |                            |               |                    |                         |               |            |               |                |
| ⑩   | GR. ST. BERNHARD  | 2472 P        |                | -41                              | 722                        | -             | 30                 | 433                     | -             | 64         | -             | 70             | -15                              | 665                        | -             | 31                 | 593                     | -             | 100        | -             | 66             |
|   | MONTANA/VERMALA   | 1508 S        |                | 33                               | 500                        | -             | 30                 | 442                     | -             | 103        | 49            | 28             | 57                               | 443                        | -             | 31                 | 500                     | -             | 118        | 57            | 26             |
|   | SION              | 482 F         |                | 95                               | 253                        | -             | 21                 | 465                     | -             | 136        | 66            | 26             | 113                              | 189                        | -             | 18                 | 530                     | -             | 143        | 73            | 26             |
|   | ULRICHEN          | 1345 F        |                | 24                               | 529                        | -             | 30                 | 420                     | -             | 31         | 20            | 21             | 53                               | 454                        | -             | 31                 | 437                     | -             | 61         | 38            | 19             |
|   | VISP              | 640 F         |                | 85                               | 316                        | -             | 26                 | 458                     | -             | 126        | 59            | 55             | 105                              | 228                        | -             | 21                 | 553                     | -             | 144        | 72            | 47             |
|   | ZERMATT           | 1638 A        |                | 25                               | 524                        | -             | 30                 | 512                     | -             | 106        | 69            | 26             | 52                               | 460                        | -             | 31                 | 544                     | -             | 109        | 62            | 28             |
|   |                   |               |                |                                  |                            |               |                    |                         |               |            |               |                |                                  |                            |               |                    |                         |               |            |               |                |
| ⑪   | CORVATSCH         | 3315 G        |                | -77                              | 830                        | -             | 30                 | 601                     | -             | 123        | 77            |                | -47                              | 765                        | -             | 31                 | 674                     | -             | 115        | 64            |                |
|   | SAMEDAN-ST.MORITZ | 1705 F        |                | 15                               | 555                        | -             | 30                 | 523                     | -             | 109        | 71            | 30             | 38                               | 502                        | -             | 31                 | 524                     | -             | 110        | 67            | 24             |
|   | SCUOL             | 1298 S        |                | 55                               | 435                        | -             | 30                 | 524                     | -             | 110        | 65            | 19             | 72                               | 389                        | -             | 30                 | 551                     | -             | 107        | 60            | 17             |
| ⑫   | LOCARNO-MAGADINO  | 197 F         |                | 101                              | 261                        | -             | 25                 | 275                     | -             | 97         | 48            | 20             | 128                              | 76                         | -             | 8                  | 335                     | -             | 106        | 56            | 20             |
|   | LOCARNO-MONTI     | 366 S         |                | 97                               | 288                        | -             | 27                 | 321                     | -             | 105        | 52            | 13             | 125                              | 115                        | -             | 12                 | 382                     | -             | 106        | 58            | 13             |
|   | LUGANO            | 273 F         |                | 103                              | 254                        | -             | 25                 | 295                     | -             | 98         | 54            | 15             | 129                              | 71                         | -             | 8                  | 349                     | -             | 103        | 59            | 14             |
|   | PIOTTA            | 1007 F        |                | 54                               | 437                        | -             | 30                 | 281                     | -             | 69         | 38            | 26             | 84                               | 344                        | -             | 29                 | 375                     | -             | 79         | 54            | 31             |
|   | POSCHIAVO/ROBBIA  | 1078 T        |                | 61                               | 416                        | -             | 30                 | 399                     | -             | 98         | 65            | 22             | 83                               | 363                        | -             | 31                 | 423                     | -             | 89         | 61            | 16             |
|   | SAN BERNARDINO    | 1639 T        |                | 8                                | 576                        | -             | 30                 | 336                     | -             | 45         | 35            | 22             | 36                               | 508                        | -             | 31                 | 381                     | -             | 58         | 43            | 27             |
| STABIO  | 353 F             |               | 99             | 273                              | -                          | 26            | 330                | -                       | 101           | 63         | 15            | 123            | 115                              | -                          | 13            | 380                | -                       | 103           | 79         | 13            |                |

| Höhe | - | m ü.M.   | Höhe des Messfeldes in Metern über Meer |                                |                    |         |                              |                    |
|------|---|----------|---|--------------------------------|--------------------|---------|------------------------------|--------------------|
| Lage | - | codiert: | Symbol                                  | Lagedefinition                 | Höhe über Talsohle | Symbol  | Lagedefinition               | Höhe über Talsohle |
|      |   |          | F                                       | Ebene, flaches Tal             | < 30 m             | ■       | dichte städtische Überbauung | -                  |
|      |   |          | A                                       | erhöhte Lage, Anhöhe           | 30-100 m           | S       | Südhanglage                  | > 100 m            |
|      |   |          | T                                       | geneigtes Tal                  | -                  | E; W; N | Ost-, West-, Nordhanglage    | > 100 m            |
|      |   |          | M                                       | Muldenlage, enger Talabschluss | -                  | P       | Passlage, Sattel             | -                  |
|      |   |          | U                                       | Seeufer                        | -                  | G       | Gipfellaage, Grat            | -                  |

| Klimadaten für die Energietechnik                           |                    |             | J U N I 1983 |                                      |                 |               |                            |                         |               |                    |               | J U L I 1983   |                       |                 |               |            |                         |               |            |               |                |
|---|--------------------|-------------|--------------|--------------------------------------|-----------------|---------------|----------------------------|-------------------------|---------------|--------------------|---------------|----------------|-----------------------|-----------------|---------------|------------|-------------------------|---------------|------------|---------------|----------------|
| mitgeteilt von der Schweizerischen Meteorologischen Anstalt |                    |             |              |                                      |                 |               |                            |                         |               |                    |               |                |                       |                 |               |            |                         |               |            |               |                |
| Klimaregion   | Station            | Höhe/m u.M. | Lage         | Lufttemperatur $\bar{t}_{\text{am}}$ |                 |               | Heizgradtage $HGT_{20/12}$ |                         |               | Heiztage $HT_{12}$ |               |                | Globalstrahlung $G_H$ |                 |               | Sonne $SS$ |                         |               | Wind $v$   |               |                |
|   |                    |             |              | Mittel 0,1 °C                        | Summe °C · Tage | in % der Norm | Summe Tage                 | Summe MJ/m <sup>2</sup> | in % der Norm | Summe Std.         | in % der Norm | Mittel 0,1 m/s | Mittel 0,1 °C         | Summe °C · Tage | in % der Norm | Summe Tage | Summe MJ/m <sup>2</sup> | in % der Norm | Summe Std. | in % der Norm | Mittel 0,1 m/s |
| ①   | BASEL-BINNINGEN    | 316 A       |              | 178                                  | 0               | -             | 0                          | 593                     | -             | 175                | 97            | 19             | 225                   | 0               | -             | 0          | 707                     | -             | 296        | 149           | 16             |
|   | FAHY               | 596 F       |              | 159                                  | 38              | -             | 4                          | 568                     | -             | 137                | 92            | 25             | 215                   | 0               | -             | 0          | 678                     | -             | 278        | 150           | 27             |
|   | RUENENBERG         | 610 A       |              | 160                                  | 37              | -             | 4                          | 598                     | -             | 150                | -             | 22             | 214                   | 0               | -             | 0          | 742                     | -             | 288        | -             | 19             |
| ②   | CHASSERAL          | 1599 G      |              | 93                                   | 273             | -             | 22                         | 525                     | -             | 138                | 76            | 57             | 160                   | 51              | -             | 5          | 701                     | -             | 289        | 148           | 48             |
|   | LA CHAUX DE FONDS  | 1018 M      |              | 130                                  | 119             | -             | 12                         | 564                     | -             | 149                | 100           | 19             | 189                   | 19              | -             | 2          | 708                     | -             | 289        | 160           | 15             |
|   | LA DOLE            | 1670 G      |              | 97                                   | 266             | -             | 22                         | 546                     | -             | 159                | 81            | 47             | 163                   | 33              | -             | 3          | 674                     | -             | 271        | 118           | 48             |
|   | LA FRETAZ          | 1202 S      |              | 122                                  | 149             | -             | 14                         | 577                     | -             | 169                | 109           | 18             | 183                   | 19              | -             | 2          | 726                     | -             | 301        | 158           | 18             |
| ③   | GUETTINGEN         | 440 A       |              | 165                                  | 17              | -             | 2                          | 622                     | -             | 195                | 103           | 18             | 212                   | 0               | -             | 0          | 744                     | -             | 291        | 145           | 14             |
|   | KLOTEN             | 436 F       |              | 172                                  | 17              | -             | 2                          | 597                     | -             | 171                | 91            | 20             | 217                   | 0               | -             | 0          | 723                     | -             | 290        | 150           | 16             |
|   | ST. GALLEN         | 779 T       |              | 152                                  | 58              | -             | 6                          | 576                     | -             | 150                | 86            | 21             | 205                   | 0               | -             | 0          | 730                     | -             | 269        | 138           | 17             |
|   | SCHAFFHAUSEN       | 437 E       |              | 169                                  | 9               | -             | 1                          | 599                     | -             | 179                | 102           | 33             | 222                   | 0               | -             | 0          | 715                     | -             | 294        | 159           | 29             |
|   | TAENIKON           | 536 F       |              | 164                                  | 19              | -             | 2                          | 583                     | -             | 125                | 72            | 16             | 208                   | 0               | -             | 0          | 734                     | -             | 285        | 148           | 13             |
|   | WAEDENSWIL         | 463 E       |              | 172                                  | 17              | -             | 2                          | 609                     | -             | 151                | 84            | 17             | 222                   | 0               | -             | 0          | 768                     | -             | 278        | 142           | 11             |
| ZUERICH MZA   | 556 S              |             | 169          | 18                                   | -               | 2             | 594                        | -                       | 161           | 83                 | 17            | 221            | 0                     | -               | 0             | 740        | -                       | 288           | 143        | 15            |                |
| ④   | BERN-LIEBEFELD     | 565 F       |              | 167                                  | 17              | -             | 2                          | 557                     | -             | 149                | 78            | 16             | 215                   | 0               | -             | 0          | 707                     | -             | 294        | 131           | 13             |
|   | LUZERN             | 456 F       |              | 172                                  | 16              | -             | 2                          | 521                     | -             | 117                | 91            | 9              | 224                   | 0               | -             | 0          | 705                     | -             | 261        | 154           | 9              |
|   | WYNAU              | 422 M       |              | 167                                  | 17              | -             | 2                          | 568                     | -             | 137                | 71            | 17             | 213                   | 0               | -             | 0          | 698                     | -             | 272        | 132           | 13             |
| ⑤   | CHANGINS           | 430 A       |              | 176                                  | 0               | -             | 0                          | 625                     | -             | 206                | 95            | 23             | 229                   | 0               | -             | 0          | 686                     | -             | 289        | 119           | 19             |
|   | GENEVE-COINTRIN    | 420 F       |              | 177                                  | 0               | -             | 0                          | 678                     | -             | 215                | 100           | 20             | 227                   | 0               | -             | 0          | 756                     | -             | 294        | 120           | 16             |
|   | NEUCHATEL          | 485 A       |              | 176                                  | 0               | -             | 0                          | 602                     | -             | 187                | 94            | 25             | 233                   | 0               | -             | 0          | 725                     | -             | 294        | 136           | 19             |
|   | PAYERNE            | 490 A       |              | 169                                  | 17              | -             | 2                          | 631                     | -             | 189                | 99            | 20             | 217                   | 0               | -             | 0          | 727                     | -             | 317        | 139           | 16             |
|   | PULLY              | 461 S       |              | 178                                  | 0               | -             | 0                          | 655                     | -             | 119                | 59            | 15             | 233                   | 0               | -             | 0          | 740                     | -             | 208        | 88            | 15             |
| ⑥   | GLARUS             | 515 T       |              | 163                                  | 28              | -             | 3                          | 522                     | -             | 153                | 108           | 26             | 211                   | 0               | -             | 0          | 645                     | -             | 249        | 154           | 24             |
|   | SAENTIS            | 2490 G      |              | 42                                   | 474             | -             | 30                         | 646                     | -             | 145                | 109           | 43             | 101                   | 260             | -             | 22         | 782                     | -             | 266        | 183           | 41             |
|   | VADUZ              | 460 F       |              | 172                                  | 27              | -             | 3                          | 574                     | -             | 160                | 109           | 23             | 216                   | 0               | -             | 0          | 681                     | -             | 252        | 138           | 22             |
| ⑦   | ALTDORF            | 449 F       |              | 169                                  | 17              | -             | 2                          | 534                     | -             | 159                | 98            | 24             | 222                   | 0               | -             | 0          | 639                     | -             | 260        | 143           | 27             |
|   | ENGELBERG          | 1035 T      |              | 133                                  | 96              | -             | 9                          | 536                     | -             | 150                | 91            | 15             | 186                   | 9               | -             | 1          | 685                     | -             | 258        | 143           | 16             |
|   | GUETSCH            | 2287 S      |              | 54                                   | 438             | -             | 30                         | 636                     | -             | 154                | 91            | 40             | 120                   | 182             | -             | 17         | 742                     | -             | 285        | 142           | 30             |
|   | NAPP               | 1407 G      |              | 116                                  | 175             | -             | 15                         | 492                     | -             | 116                | 98            | 27             | 180                   | 21              | -             | 2          | 710                     | -             | 302        | 190           | 28             |
|   | PILATUS            | 2106 G      |              | 74                                   | 358             | -             | 27                         | 464                     | -             | 104                | -             | 53             | 139                   | 86              | -             | 8          | 667                     | -             | 262        | -             | 41             |
| ⑧   | AIGLE              | 381 F       |              | 173                                  | 8               | -             | 1                          | 615                     | -             | 181                | 84            | 20             | 218                   | 0               | -             | 0          | 717                     | -             | 301        | 134           | 17             |
|   | INTERLAKEN         | 580 F       |              | 163                                  | 27              | -             | 3                          | 551                     | -             | 159                | 99            | 18             | 214                   | 0               | -             | 0          | 674                     | -             | 278        | 131           | 17             |
|   | JUNGFRAUJOCH       | 3580 P      |              | -24                                  | 672             | -             | 30                         | 682                     | -             | 154                | 90            | 59             | 27                    | 537             | -             | 31         | 748                     | -             | 241        | 118           | 54             |
|   | MOLESON            | 1972 G      |              | 78                                   | 324             | -             | 24                         | 516                     | -             | 130                | -             | 45             | 143                   | 93              | -             | 9          | 693                     | -             | 285        | -             | 47             |
| ⑨   | CHUR-EMS           | 555 F       |              | 166                                  | 27              | -             | 3                          | 601                     | -             | 156                | 101           | 29             | 215                   | 0               | -             | 0          | 668                     | -             | 224        | 136           | 33             |
|   | DAVOS              | 1590 A      |              | 100                                  | 253             | -             | 23                         | 606                     | -             | 127                | 87            | 24             | 150                   | 39              | -             | 4          | 712                     | -             | 224        | 139           | 21             |
|   | DISENTIS           | 1190 S      |              | 134                                  | 76              | -             | 7                          | 586                     | -             | 144                | 81            | 13             | 189                   | 9               | -             | 1          | 690                     | -             | 244        | 121           | 13             |
|   | HINTERREIN         | 1611 F      |              | 96                                   | 297             | -             | 28                         | 631                     | -             | 158                | 94            | 27             | 146                   | 38              | -             | 4          | 694                     | -             | 237        | 130           | 20             |
|   | WEISSFLUHJOCH      | 2690 G      |              | 32                                   | 505             | -             | 30                         | 633                     | -             | 167                | 98            |                | 89                    | 303             | -             | 24         | 705                     | -             | 246        | 136           |                |
| ⑩   | GR. ST. BERNHARD   | 2472 P      |              | 44                                   | 468             | -             | 30                         | 634                     | -             | 138                | -             | 51             | 113                   | 207             | -             | 18         | 738                     | -             | 277        | -             | 52             |
|   | MONTANA/VERMALA    | 1508 S      |              | 122                                  | 147             | -             | 14                         | 659                     | -             | 206                | 89            | 18             | 182                   | 18              | -             | 2          | 764                     | -             | 309        | 124           | 19             |
|   | SION               | 482 F       |              | 168                                  | 9               | -             | 1                          | 647                     | -             | 219                | 100           | 23             | 215                   | 0               | -             | 0          | 716                     | -             | 302        | 119           | 22             |
|   | ULRICHEN           | 1345 F      |              | 115                                  | 170             | -             | 17                         | 649                     | -             | 171                | 90            | 23             | 168                   | 18              | -             | 2          | 725                     | -             | 280        | 140           | 24             |
|   | VISP               | 640 F       |              | 160                                  | 20              | -             | 2                          | 648                     | -             | 206                | 89            | 30             | 211                   | 0               | -             | 0          | 735                     | -             | 305        | 120           | 27             |
|   | ZERMATT            | 1638 A      |              | 110                                  | 200             | -             | 19                         | 632                     | -             | 169                | 94            | 22             | 167                   | 28              | -             | 3          | 687                     | -             | 230        | 112           | 21             |
| ⑪   | CORVATSCH          | 3315 F      |              | 1                                    | 598             | -             | 30                         | 695                     | -             | 189                | 111           |                | 54                    | 452             | -             | 31         | 715                     | -             | 270        | 123           |                |
|   | SAMEDAN-ST. MORITZ | 1705 F      |              | 95                                   | 300             | -             | 28                         | 667                     | -             | 187                | 107           | 20             | 138                   | 64              | -             | 7          | 703                     | -             | 243        | 118           | 19             |
|   | SCUOL              | 1298 S      |              | 128                                  | 97              | -             | 9                          | 683                     | -             | 177                | 94            | 17             | 176                   | 9               | -             | 1          | 732                     | -             | 241        | 115           | 18             |
| ⑫   | LOCARNO-MAGADINO   | 197 F       |              | 192                                  | 0               | -             | 0                          | 541                     | -             | 215                | 105           | 19             | 235                   | 0               | -             | 0          | 611                     | -             | 274        | 112           | 18             |
|   | LOCARNO-MONTI      | 366 S       |              | 190                                  | 9               | -             | 1                          | 638                     | -             | 218                | 104           | 15             | 238                   | 0               | -             | 0          | 708                     | -             | 280        | 118           | 13             |
|   | LUGANO             | 273 F       |              | 193                                  | 0               | -             | 0                          | 568                     | -             | 213                | 102           | 14             | 238                   | 0               | -             | 0          | 602                     | -             | 258        | 107           | 15             |
|   | PIOTTA             | 1007 F      |              | 148                                  | 39              | -             | 4                          | 551                     | -             | 157                | 101           | 31             | 199                   | 0               | -             | 0          | 656                     | -             | 260        | 131           | 32             |
|   | POSCHIAVO/ROBBIA   | 1078 T      |              | 139                                  | 46              | -             | 5                          | 631                     | -             | 170                | 114           | 20             | 185                   | 0               | -             | 0          | 653                     | -             | 210        | 117           | 18             |
|   | SAN BERNARDINO     | 1639 T      |              | 98                                   | 271             | -             | 25                         | 597                     | -             | 155                | 111           | 28             | 152                   | 56              | -             | 6          | 692                     | -             | 229        | 127           | 25             |
|   | STABIO             | 353 F       |              | 182                                  | 9               | -             | 1                          | 589                     | -             | 188                | 121           | 13             | 224                   | 0               | -             | 0          | 638                     | -             | 218        | 132           | 11             |

|                                      |            |         |   |
|--------------------------------------|------------|---------|---|
| Lufttemperatur $\bar{t}_{\text{am}}$ | -          | 0,1 °C  | Temperaturmittel der entsprechenden Zeitspanne, berechnet aus den alle zehn Minuten in zwei Meter über Boden gemessenen Momentanwerten                      |
| Heizgradtage $HGT_{20/12}$           | Summe      | °C Tage | Summe der Heizgradtage für die entsprechende Zeitspanne. Raumtemperatur 20,0 °C. Heizgrenze: Tagesmittel = 12,0 °C [Definition siehe SIA-Empfehlung 381/3]  |
|                                      | % der Norm | %       | Heizgradtag-Zahl, ausgedrückt in Prozenten des mehrjährigen Mittelwertes (Mittelwert = 100%) [Definition und Berechnungsmethode siehe SIA-Empfehlung 381/3] |
| Heiztage $HT_{12}$                   | -          | Tage    | Summe der Heiztage für die entsprechende Zeitspanne. Heizgrenze = 12,0 °C [Definition siehe SIA-Empfehlung 381/3]   |

| Klimadaten für die Energietechnik<br>mitgeteilt von der Schweizerischen<br>Meteorologischen Anstalt |                   |             |      | AUGUST 1983                |                    |                                    |               |                            |                  |                               | SEPTEMBER 1983   |                   |                  |                    |                  |                            |                            |                                    |               |                       |                   |                               |  |               |  |             |  |
|---|-------------------|-------------|------|----------------------------|--------------------|------------------------------------|---------------|----------------------------|------------------|-------------------------------|------------------|-------------------|------------------|--------------------|------------------|----------------------------|----------------------------|------------------------------------|---------------|-----------------------|-------------------|-------------------------------|--|---------------|--|-------------|--|
| Klimaregion   | Station           | Höhe/m ü.M. | Lage | Lufttemperatur<br>$t_{lm}$ |                    | Heizgrad-<br>tage<br>$HGT_{20/12}$ |               | Heiztage<br>$HT_{12}$      |                  | Global-<br>strahlung<br>$G_H$ |                  | Sonne<br>$SS$     |                  | Wind<br>$v$        |                  | Lufttemperatur<br>$t_{lm}$ |                            | Heizgrad-<br>tage<br>$HGT_{20/12}$ |               | Heiztage<br>$HT_{12}$ |                   | Global-<br>strahlung<br>$G_H$ |  | Sonne<br>$SS$ |  | Wind<br>$v$ |  |
|   |                   |             |      | Mittel<br>0,1 °C           | Summe<br>°C · Tage | in %<br>der Norm                   | Summe<br>Tage | Summe<br>MJ/m <sup>2</sup> | in %<br>der Norm | Summe<br>Std.                 | in %<br>der Norm | Mittel<br>0,1 m/s | Mittel<br>0,1 °C | Summe<br>°C · Tage | in %<br>der Norm | Summe<br>Tage              | Summe<br>MJ/m <sup>2</sup> | in %<br>der Norm                   | Summe<br>Std. | in %<br>der Norm      | Mittel<br>0,1 m/s |                               |  |               |  |             |  |
| ①   | BASEL-BINNINGEN   | 316 A       |      | 193                        | 0                  | -                                  | 0             | 498                        | -                | 181                           | 98               | 16                | 153              | 18                 | -                | 2                          | 363                        | -                                  | 172           | 109                   | 20                |                               |  |               |  |             |  |
|   | FAHY              | 596 F       |      | 177                        | 9                  | -                                  | 1             | 474                        | -                | 165                           | 97               | 23                | 140              | 61                 | -                | 6                          | 360                        | -                                  | 163           | 109                   | 30                |                               |  |               |  |             |  |
|   | RUENENBERG        | 610 A       |      | 176                        | 9                  | -                                  | 1             | 517                        | -                | 173                           | -                | 19                | 142              | 59                 | -                | 6                          | 378                        | -                                  | 172           | -                     | 24                |                               |  |               |  |             |  |
| ②   | CHASSERAL         | 1599 G      |      | 111                        | 174                | -                                  | 16            | 465                        | -                | 146                           | 77               | 53                | 89               | 278                | -                | 22                         | 376                        | -                                  | 165           | 107                   | 90                |                               |  |               |  |             |  |
|   | LA CHAUX DE FONDS | 1018 M      |      | 144                        | 50                 | -                                  | 5             | 466                        | -                | 146                           | 83               | 16                | 117              | 150                | -                | 14                         | 377                        | -                                  | 168           | 108                   | 23                |                               |  |               |  |             |  |
|   | LA DOLE           | 1670 G      |      | 113                        | 173                | -                                  | 17            | 423                        | -                | 117                           | 65               | 47                | 95               | 275                | -                | 23                         | 398                        | -                                  | 177           | 107                   | 69                |                               |  |               |  |             |  |
|   | LA FRETAZ         | 1202 S      |      | 138                        | 61                 | -                                  | 6             | 473                        | -                | 141                           | 84               | 16                | 112              | 153                | -                | 13                         | 385                        | -                                  | 172           | 103                   | 18                |                               |  |               |  |             |  |
| ③   | GUETTINGEN        | 440 A       |      | 178                        | 0                  | -                                  | 0             | 513                        | -                | 185                           | 97               | 17                | 136              | 81                 | -                | 9                          | 366                        | -                                  | 145           | 95                    | 22                |                               |  |               |  |             |  |
|   | KLOTEN            | 436 F       |      | 185                        | 0                  | -                                  | 0             | 515                        | -                | 182                           | 97               | 17                | 145              | 46                 | -                | 5                          | 391                        | -                                  | 172           | 113                   | 18                |                               |  |               |  |             |  |
|   | ST. GALLEN        | 779 T       |      | 162                        | 37                 | -                                  | 4             | 469                        | -                | 159                           | 93               | 17                | 134              | 99                 | -                | 10                         | 363                        | -                                  | 153           | 118                   | 21                |                               |  |               |  |             |  |
|   | SCHAFFHAUSEN      | 437 E       |      | 184                        | 0                  | -                                  | 0             | 497                        | -                | 186                           | 103              | 30                | 140              | 58                 | -                | 6                          | 376                        | -                                  | 159           | 123                   | 33                |                               |  |               |  |             |  |
|   | TAENIKON          | 536 F       |      | 175                        | 8                  | -                                  | 1             | 502                        | -                | 174                           | 95               | 13                | 139              | 82                 | -                | 9                          | 375                        | -                                  | 153           | 100                   | 17                |                               |  |               |  |             |  |
|   | WAEDENSWIL        | 463 E       |      | 183                        | 8                  | -                                  | 1             | 515                        | -                | 157                           | 87               | 11                | 145              | 46                 | -                | 5                          | 397                        | -                                  | 145           | 104                   | 10                |                               |  |               |  |             |  |
|   | ZUERICH MZA       | 556 S       |      | 182                        | 8                  | -                                  | 1             | 505                        | -                | 172                           | 87               | 15                | 145              | 55                 | -                | 6                          | 378                        | -                                  | 162           | 98                    | 19                |                               |  |               |  |             |  |
| ④   | BERN-LIEBEFELD    | 565 F       |      | -                          | -                  | -                                  | -             | -                          | -                | -                             | -                | -                 | -                | -                  | -                | -                          | -                          | -                                  | -             | -                     | -                 |                               |  |               |  |             |  |
|   | LUZERN            | 456 F       |      | 177                        | 9                  | -                                  | 1             | 507                        | -                | 160                           | 78               | 13                | 141              | 59                 | -                | 6                          | 386                        | -                                  | 172           | 103                   | 15                |                               |  |               |  |             |  |
|   | WYNAU             | 422 M       |      | 183                        | 9                  | -                                  | 1             | 466                        | -                | 142                           | 85               | 13                | 148              | 35                 | -                | 4                          | 357                        | -                                  | 141           | 98                    | 14                |                               |  |               |  |             |  |
| ⑤   | CHANGINS          | 430 A       |      | 196                        | 0                  | -                                  | 0             | 534                        | -                | 175                           | 80               | 22                | 156              | 45                 | -                | 5                          | 410                        | -                                  | 191           | 98                    | 24                |                               |  |               |  |             |  |
|   | GENEVE-COINTRIN   | 420 F       |      | 194                        | 0                  | -                                  | 0             | 582                        | -                | 178                           | 78               | 17                | 159              | 34                 | -                | 4                          | 440                        | -                                  | 194           | 102                   | 19                |                               |  |               |  |             |  |
|   | NEUCHATEL         | 485 A       |      | 195                        | 0                  | -                                  | 0             | 538                        | -                | 177                           | 86               | 23                | 154              | 36                 | -                | 4                          | 389                        | -                                  | 180           | 111                   | 26                |                               |  |               |  |             |  |
|   | PAYERNE           | 490 A       |      | 182                        | 0                  | -                                  | 0             | 557                        | -                | 205                           | 98               | 17                | 146              | 45                 | -                | 5                          | 399                        | -                                  | 174           | 99                    | 21                |                               |  |               |  |             |  |
|   | PULLY             | 461 S       |      | 197                        | 0                  | -                                  | 0             | 564                        | -                | 204                           | 95               | 15                | 160              | 18                 | -                | 2                          | 411                        | -                                  | 195           | 110                   | 16                |                               |  |               |  |             |  |
| ⑥   | GLARUS            | 515 T       |      | 172                        | 19                 | -                                  | 2             | 415                        | -                | 139                           | 95               | 20                | 138              | 68                 | -                | 7                          | 318                        | -                                  | 115           | 104                   | 21                |                               |  |               |  |             |  |
|   | SAENTIS           | 2490 G      |      | 62                         | 427                | -                                  | 31            | 510                        | -                | 138                           | 92               | 28                | 45               | 464                | -                | 30                         | 423                        | -                                  | 161           | 93                    | 69                |                               |  |               |  |             |  |
|   | VADUZ             | 460 F       |      | 177                        | 27                 | -                                  | 3             | 437                        | -                | 155                           | 98               | 18                | 147              | 55                 | -                | 6                          | 349                        | -                                  | 143           | 92                    | 20                |                               |  |               |  |             |  |
|   | ALTDORF           | 449 F       |      | 181                        | 9                  | -                                  | 1             | 428                        | -                | 151                           | 91               | 20                | 148              | 54                 | -                | 6                          | 328                        | -                                  | 123           | 88                    | 27                |                               |  |               |  |             |  |
| ⑦   | ENGELBERG         | 1035 T      |      | 142                        | 62                 | -                                  | 6             | 421                        | -                | 124                           | 73               | 13                | 118              | 154                | -                | 15                         | 369                        | -                                  | 147           | 109                   | 13                |                               |  |               |  |             |  |
|   | GUETSCH           | 2287 S      |      | 85                         | 348                | -                                  | 30            | 488                        | -                | 146                           | 77               | 29                | 74               | 357                | -                | 27                         | 440                        | -                                  | 183           | 102                   | 43                |                               |  |               |  |             |  |
|   | NAPF              | 1407 G      |      | 132                        | 71                 | -                                  | 6             | 432                        | -                | 135                           | 88               | 27                | 110              | 187                | -                | 16                         | 379                        | -                                  | 171           | 108                   | 30                |                               |  |               |  |             |  |
|   | PILATUS           | 2106 G      |      | 90                         | 312                | -                                  | 27            | 448                        | -                | 135                           | -                | 49                | 73               | 352                | -                | 26                         | 387                        | -                                  | 157           | -                     | 43                |                               |  |               |  |             |  |
| ⑧   | AIGLE             | 381 F       |      | 184                        | 0                  | -                                  | 0             | 527                        | -                | 175                           | 85               | 16                | 148              | 54                 | -                | 6                          | 414                        | -                                  | 188           | 114                   | 15                |                               |  |               |  |             |  |
|   | INTERLAKEN        | 580 F       |      | 170                        | 10                 | -                                  | 1             | 457                        | -                | 148                           | 81               | 15                | 137              | 77                 | -                | 8                          | 377                        | -                                  | 165           | 109                   | 17                |                               |  |               |  |             |  |
|   | JUNGFRAUJOCH      | 3580 P      |      | -6                         | 639                | -                                  | 31            | 567                        | -                | 128                           | 64               | 55                | -16              | 649                | -                | 30                         | 463                        | -                                  | 173           | 94                    | 78                |                               |  |               |  |             |  |
|   | MOLESON           | 1972 G      |      | 95                         | 304                | -                                  | 28            | 439                        | -                | 119                           | -                | 31                | 82               | 312                | -                | 24                         | 408                        | -                                  | 188           | -                     | 56                |                               |  |               |  |             |  |
| ⑨   | CHUR-EMS          | 555 F       |      | 176                        | 17                 | -                                  | 2             | 469                        | -                | 145                           | 85               | 29                | 144              | 65                 | -                | 7                          | 388                        | -                                  | 157           | 101                   | 31                |                               |  |               |  |             |  |
|   | DAVOS             | 1590 A      |      | 112                        | 175                | -                                  | 16            | 518                        | -                | 144                           | 99               | 24                | 89               | 305                | -                | 26                         | 457                        | -                                  | 172           | 105                   | 24                |                               |  |               |  |             |  |
|   | DISENTIS          | 1190 S      |      | 148                        | 55                 | -                                  | 5             | 473                        | -                | 136                           | 73               | 13                | 120              | 116                | -                | 10                         | 408                        | -                                  | 170           | 98                    | 13                |                               |  |               |  |             |  |
|   | HINTERRHEIN       | 1611 F      |      | 115                        | 171                | -                                  | 17            | 479                        | -                | 138                           | 97               | 27                | 92               | 317                | -                | 29                         | 393                        | -                                  | 149           | 106                   | 22                |                               |  |               |  |             |  |
|   | WEISSFLUHOCH      | 2690 G      |      | 53                         | 455                | -                                  | 31            | 457                        | -                | 125                           | 67               |                   | 43               | 470                | -                | 30                         | 428                        | -                                  | 170           | 92                    |                   |                               |  |               |  |             |  |
| ⑩   | GR. ST. BERNHARD  | 2472 P      |      | 66                         | 414                | -                                  | 31            | 453                        | -                | 126                           | -                | 56                | 58               | 426                | -                | 30                         | 451                        | -                                  | 193           | -                     | 53                |                               |  |               |  |             |  |
|   | MONTANA/VERMALA   | 1508 S      |      | 137                        | 60                 | -                                  | 6             | 575                        | -                | 190                           | 84               | 16                | 117              | 123                | -                | 10                         | 455                        | -                                  | 204           | 97                    | 19                |                               |  |               |  |             |  |
|   | SION              | 482 F       |      | 185                        | 0                  | -                                  | 0             | 545                        | -                | 200                           | 89               | 21                | 147              | 56                 | -                | 6                          | 438                        | -                                  | 213           | 109                   | 20                |                               |  |               |  |             |  |
|   | ULRICHEN          | 1345 F      |      | 132                        | 53                 | -                                  | 5             | 499                        | -                | 144                           | 74               | 25                | 103              | 236                | -                | 22                         | 426                        | -                                  | 179           | 105                   | 17                |                               |  |               |  |             |  |
|   | VISP              | 640 F       |      | 177                        | 0                  | -                                  | 0             | 544                        | -                | 193                           | 84               | 30                | 142              | 58                 | -                | 6                          | 445                        | -                                  | 216           | 114                   | 33                |                               |  |               |  |             |  |
|   | ZERMATT           | 1638 A      |      | 128                        | 70                 | -                                  | 7             | 516                        | -                | 149                           | 79               | 20                | 102              | 222                | -                | 20                         | 438                        | -                                  | 170           | 100                   | 20                |                               |  |               |  |             |  |
| ⑪   | CORVATSCH         | 3315 G      |      | 20                         | 560                | -                                  | 31            | 505                        | -                | 142                           | 67               |                   | 6                | 582                | -                | 30                         | 478                        | -                                  | 202           | 104                   |                   |                               |  |               |  |             |  |
|   | SAMEDAN-ST.MORITZ | 1705 F      |      | 108                        | 231                | -                                  | 23            | 498                        | -                | 141                           | 78               | 24                | 80               | 354                | -                | 29                         | 425                        | -                                  | 165           | 103                   | 26                |                               |  |               |  |             |  |
|   | SCUOL             | 1298 S      |      | 142                        | 72                 | -                                  | 7             | 518                        | -                | 166                           | 86               | 15                | 111              | 188                | -                | 18                         | 433                        | -                                  | 175           | 102                   | 15                |                               |  |               |  |             |  |
| ⑫   | LOCARNO-MAGADINO  | 197 F       |      | 206                        | 0                  | -                                  | 0             | 506                        | -                | 183                           | 81               | 20                | 164              | 0                  | -                | 0                          | 394                        | -                                  | 216           | 108                   | 17                |                               |  |               |  |             |  |
|   | LOCARNO-MONTI     | 366 S       |      | 209                        | 0                  | -                                  | 0             | 555                        | -                | 202                           | 88               | 15                | 172              | 0                  | -                | 0                          | 399                        | -                                  | 215           | 106                   | 13                |                               |  |               |  |             |  |
|   | LUGANO            | 273 F       |      | 208                        | 0                  | -                                  | 0             | 473                        | -                | 186                           | 83               | 16                | 176              | 0                  | -                | 0                          | 381                        | -                                  | 231           | 122                   | 16                |                               |  |               |  |             |  |
|   | PIOTTA            | 1007 F      |      | 164                        | 0                  | -                                  | 0             | 434                        | -                | 123                           | 65               | 28                | 131              | 95                 | -                | 10                         | 378                        | -                                  | 186           | 101                   | 27                |                               |  |               |  |             |  |
|   | POSCHIAVO/ROBBIA  | 1078 T      |      | 152                        | 16                 | -                                  | 2             | 457                        | -                | 122                           | 80               | 16                | 120              | 159                | -                | 17                         | 376                        | -                                  | 141           | 104                   | 16                |                               |  |               |  |             |  |
|   | SAN BERNARDINO    | 1639 T      |      | 111                        | 214                | -                                  | 22            | 471                        | -                | 114                           | 69               | 27                | 91               | 302                | -                | 26                         | 401                        | -                                  | 163           | 109                   | 32                |                               |  |               |  |             |  |
|   | STABIO            | 353 F       |      | 191                        | 0                  | -                                  | 0             | 506                        | -                | 186                           | 117              | 12                | 160              | 0                  | -                | 0                          | 409                        | -                                  | 201           | 134                   | 12                |                               |  |               |  |             |  |

|   |                     |                        |   |
|---|---------------------|------------------------|---|
| <b>Globalstrahlung <math>G_H</math></b> | Summe<br>% der Norm | MJ/m <sup>2</sup><br>% | Summe der Globalstrahlung (sichtbarer Bereich plus nahes Infrarot) auf eine horizontale Fläche<br>Globalstrahlung ausgedrückt in Prozenten des mehrjährigen Mittelwertes (Mittelwert = 100%) [Mittelwert-<br>berechnung durch SMA]  |
| <b>Sonne <math>SS</math></b>            | Summe<br>% der Norm | Std.<br>%              | Stunden-Summe der Sonnenscheindauer für die entsprechende Zeitspanne. Als Sonnenschein wird eine di-<br>rekte Strahlung $\geq 200$ W/m <sup>2</sup> verstanden<br>Stunden-Summe, ausgedrückt in Prozenten des mehrjährigen Mittelwertes (Mittelwert = 100%) [Mittelwert-<br>berechnung durch SMA] |
| <b>Wind <math>v</math></b>              | Mittel              | 0,1 m/s                | Mittlere Windgeschwindigkeit für die entsprechende Zeitspanne. Messhöhe im allgemeinen 10 Meter über<br>Grund   |

| Klimadaten für die Energietechnik                           |                   |               | JANUAR 1983 - MAI 1983 |                                  |                 |                            |            |                         |               |                       |               | JULI 1982 - JUNI 1983 |               |                 |               |                                  |                         |                            |            |                    |                |                       |  |            |  |          |  |
|---|-------------------|---------------|------------------------|----------------------------------|-----------------|----------------------------|------------|-------------------------|---------------|-----------------------|---------------|-----------------------|---------------|-----------------|---------------|----------------------------------|-------------------------|----------------------------|------------|--------------------|----------------|-----------------------|--|------------|--|----------|--|
| mitgeteilt von der Schweizerischen Meteorologischen Anstalt |                   |               |                        |                                  |                 |                            |            |                         |               |                       |               |                       |               |                 |               |                                  |                         |                            |            |                    |                |                       |  |            |  |          |  |
| Klimaregion   | Station           | Höhe / m ü.M. | Lage                   | Lufttemperatur $T_{\text{Luft}}$ |                 | Heizgradtage $HGT_{30/12}$ |            | Heiztage $HT_{12}$      |               | Globalstrahlung $G_H$ |               | Somme $SS$            |               | Wind $v$        |               | Lufttemperatur $T_{\text{Luft}}$ |                         | Heizgradtage $HGT_{30/12}$ |            | Heiztage $HT_{12}$ |                | Globalstrahlung $G_H$ |  | Somme $SS$ |  | Wind $v$ |  |
|   |                   |               |                        | Mittel 0,1 °C                    | Summe °C · Tage | in % der Norm              | Summe Tage | Summe MJ/m <sup>2</sup> | in % der Norm | Summe Std.            | in % der Norm | Mittel 0,1 m/s        | Mittel 0,1 °C | Summe °C · Tage | in % der Norm | Summe Tage                       | Summe MJ/m <sup>2</sup> | in % der Norm              | Summe Std. | in % der Norm      | Mittel 0,1 m/s |                       |  |            |  |          |  |
| ①   | BASEL-BINNINGEN   | 316 A         |                        | 65                               | 1883            | -                          | 128        | 1317                    | -             | 466                   | 82            | 26                    | 105           | 3039            | -             | 214                              | 3697                    | -                          | 1369       | 91                 | 23             |                       |  |            |  |          |  |
|   | FAHY              | 596 F         |                        | 47                               | 2252            | -                          | 144        | 1295                    | -             | 407                   | 79            | 33                    | 88            | 3635            | -             | 243                              | 3728                    | -                          | 1267       | 92                 | 29             |                       |  |            |  |          |  |
|   | RUENENBERG        | 610 A         |                        | -                                | -               | -                          | -          | -                       | -             | -                     | -             | -                     | -             | -               | -             | -                                | -                       | -                          | -          | -                  | -              |                       |  |            |  |          |  |
| ②   | CHASSERAL         | 1599 G        |                        | -6                               | 3092            | -                          | 151        | 1371                    | -             | 459                   | 71            | 67                    | 36            | 5718            | -             | 320                              | 3835                    | -                          | 1365       | 82                 | 73             |                       |  |            |  |          |  |
|   | LA CHAU DE FONDS  | 1018 M        |                        | 18                               | 2734            | -                          | 150        | 1399                    | -             | 454                   | 73            | 26                    | 62            | 4645            | -             | 281                              | 3821                    | -                          | 1378       | 86                 | 23             |                       |  |            |  |          |  |
|   | LA DOLE           | 1670 G        |                        | -5                               | 3087            | -                          | 151        | 1459                    | -             | 422                   | 68            | 87                    | 38            | 5635            | -             | 315                              | 3930                    | -                          | 1383       | 81                 | 81             |                       |  |            |  |          |  |
|   | LA FRETAZ         | 1202 S        |                        | 15                               | 2773            | -                          | 150        | 1422                    | -             | 442                   | 74            | 21                    | 57            | 4810            | -             | 288                              | 3956                    | -                          | 1347       | 86                 | 19             |                       |  |            |  |          |  |
| ③   | GUETTINGEN        | 440 A         |                        | 50                               | 2164            | -                          | 137        | 1429                    | -             | 508                   | 80            | 25                    | 90            | 3499            | -             | 229                              | 3831                    | -                          | 1359       | 89                 | 20             |                       |  |            |  |          |  |
|   | KLOTEN            | 436 F         |                        | 53                               | 2105            | -                          | 135        | 1419                    | -             | 466                   | 81            | 25                    | 94            | 3434            | -             | 229                              | 3707                    | -                          | 1264       | 87                 | 21             |                       |  |            |  |          |  |
|   | ST. GALLEN        | 779 T         |                        | 42                               | 2262            | -                          | 135        | 1492                    | -             | 474                   | 83            | 26                    | 83            | 3811            | -             | 245                              | 3960                    | -                          | 1334       | 93                 | 22             |                       |  |            |  |          |  |
|   | SCHAFFHAUSEN      | 437 E         |                        | 51                               | 2143            | -                          | 136        | 1355                    | -             | 448                   | 84            | 40                    | 91            | 3502            | -             | 229                              | 3669                    | -                          | 1242       | 92                 | 35             |                       |  |            |  |          |  |
|   | TAENIKON          | 536 F         |                        | 48                               | 2173            | -                          | 136        | 1477                    | -             | 424                   | 73            | 22                    | 89            | 3562            | -             | 233                              | 3825                    | -                          | 1148       | 78                 | 18             |                       |  |            |  |          |  |
|   | WAEDENSWIL        | 463 E         |                        | 54                               | 2058            | -                          | 129        | 1557                    | -             | 484                   | 85            | 18                    | 96            | 3329            | -             | 219                              | 4042                    | -                          | 1339       | 93                 | 16             |                       |  |            |  |          |  |
| ZUERICH MZA   | 556 S             |               | 53                     | 2060                             | -               | 130                        | 1435       | -                       | 502           | 80                    | 24            | 95                    | 3365          | -               | 223           | 3841                             | -                       | 1362                       | 86         | 20                 |                |                       |  |            |  |          |  |
| ④   | BERN-LIEBEFELD    | 565 F         |                        | 47                               | 2199            | -                          | 137        | 1385                    | -             | 460                   | 70            | 19                    | 89            | 3597            | -             | 234                              | 3822                    | -                          | 1324       | 78                 | 17             |                       |  |            |  |          |  |
|   | LUZERN            | 456 F         |                        | 57                               | 2010            | -                          | 129        | 1409                    | -             | 452                   | 87            | 17                    | 97            | 3286            | -             | 220                              | 3633                    | -                          | 1233       | 94                 | 14             |                       |  |            |  |          |  |
|   | WYNAU             | 422 M         |                        | 48                               | 2216            | -                          | 141        | 1382                    | -             | 390                   | 68            | 22                    | 90            | 3559            | -             | 235                              | 3762                    | -                          | 1120       | 76                 | 18             |                       |  |            |  |          |  |
| ⑤   | CHANGINS          | 430 A         |                        | 56                               | 2094            | -                          | 140        | 1357                    | -             | 446                   | 60            | 23                    | 99            | 3317            | -             | 229                              | 3841                    | -                          | 1431       | 78                 | 22             |                       |  |            |  |          |  |
|   | GENEVE-COINTRIN   | 420 F         |                        | 57                               | 2063            | -                          | 137        | 1453                    | -             | 432                   | 59            | 24                    | 100           | 3277            | -             | 225                              | 4195                    | -                          | 1430       | 78                 | 22             |                       |  |            |  |          |  |
|   | NEUCHATEL         | 485 A         |                        | 57                               | 2051            | -                          | 137        | 1360                    | -             | 470                   | 74            | 28                    | 100           | 3273            | -             | 226                              | 3804                    | -                          | 1343       | 85                 | 26             |                       |  |            |  |          |  |
|   | PAYERNE           | 490 A         |                        | 47                               | 2249            | -                          | 144        | 1430                    | -             | 444                   | 69            | 26                    | 91            | 3566            | -             | 235                              | 3994                    | -                          | 1362       | 82                 | 23             |                       |  |            |  |          |  |
|   | PULLY             | 461 S         |                        | 60                               | 2027            | -                          | 138        | 1402                    | -             | 423                   | 59            | 15                    | 104           | 3185            | -             | 226                              | 4068                    | -                          | 1262       | 71                 | 15             |                       |  |            |  |          |  |
| ⑥   | GLARUS            | 515 T         |                        | 49                               | 2133            | -                          | 129        | 1453                    | -             | 433                   | 83            | 23                    | 90            | 3528            | -             | 224                              | 3696                    | -                          | 1224       | 99                 | 21             |                       |  |            |  |          |  |
|   | SAENTIS           | 2490 G        |                        | -51                              | 3775            | -                          | 151        | 2115                    | -             | 597                   | 84            | 77                    | -9            | 7595            | -             | 364                              | 5132                    | -                          | 1612       | 92                 | 64             |                       |  |            |  |          |  |
|   | VADUZ             | 460 F         |                        | 63                               | 1915            | -                          | 122        | 1535                    | -             | 520                   | 88            | 28                    | 101           | 3156            | -             | 209                              | 3950                    | -                          | 1413       | 99                 | 24             |                       |  |            |  |          |  |
| ⑦   | ALTDORF           | 449 F         |                        | 59                               | 1958            | -                          | 124        | 1503                    | -             | 463                   | 80            | 33                    | 99            | 3148            | -             | 208                              | 3839                    | -                          | 1342       | 94                 | 28             |                       |  |            |  |          |  |
|   | ENGLBERG          | 1035 T        |                        | 26                               | 2590            | -                          | 147        | 1577                    | -             | 486                   | 88            | 17                    | -             | -               | -             | -                                | -                       | -                          | -          | -                  | -              |                       |  |            |  |          |  |
|   | GUETSCH           | 2287 S        |                        | -40                              | 3610            | -                          | 151        | 2069                    | -             | 510                   | 73            | 65                    | 3             | 7097            | -             | 354                              | 4948                    | -                          | 1576       | 87                 | 61             |                       |  |            |  |          |  |
|   | NAPP              | 1407 G        |                        | 12                               | 2823            | -                          | 150        | 1368                    | -             | 438                   | 77            | 40                    | 54            | 4983            | -             | 296                              | 3656                    | -                          | 1307       | 88                 | 37             |                       |  |            |  |          |  |
|   | PILATUS           | 2106 G        |                        | -17                              | 3264            | -                          | 151        | 1607                    | -             | 514                   | -             | 45                    | 21            | 6359            | -             | 342                              | 3968                    | -                          | 1395       | -                  | 49             |                       |  |            |  |          |  |
| ⑧   | AIGLE             | 381 F         |                        | 55                               | 2081            | -                          | 135        | 1517                    | -             | 476                   | 66            | 22                    | 97            | 3336            | -             | 223                              | 4167                    | -                          | 1484       | 80                 | 20             |                       |  |            |  |          |  |
|   | INTERLAKEN        | 580 F         |                        | 45                               | 2236            | -                          | 137        | 1470                    | -             | 478                   | 76            | 18                    | 85            | 3715            | -             | 237                              | 3931                    | -                          | 1395       | 88                 | 16             |                       |  |            |  |          |  |
|   | JUNGFRAUJOCH      | 3580 P        |                        | -115                             | 4746            | -                          | 151        | 1882                    | -             | 491                   | 73            | 95                    | -73           | 9949            | -             | 365                              | 5084                    | -                          | 1560       | 87                 | 90             |                       |  |            |  |          |  |
|   | MOLESON           | 1972 G        |                        | -14                              | 3223            | -                          | 151        | 1614                    | -             | 534                   | -             | 67                    | -             | -               | -             | -                                | -                       | -                          | -          | -                  | -              |                       |  |            |  |          |  |
| ⑨   | CHUR-EMS          | 555 F         |                        | 53                               | 2053            | -                          | 127        | 1619                    | -             | 503                   | 82            | 33                    | 95            | 3311            | -             | 215                              | 4208                    | -                          | 1452       | 94                 | 32             |                       |  |            |  |          |  |
|   | DAVOS             | 1590 A        |                        | -11                              | 3178            | -                          | 151        | 1912                    | -             | 510                   | 75            | 21                    | 33            | 5797            | -             | 318                              | 4646                    | -                          | 1451       | 87                 | 22             |                       |  |            |  |          |  |
|   | DISENTIS          | 1190 S        |                        | 21                               | 2685            | -                          | 150        | 1585                    | -             | 452                   | 69            | 10                    | 65            | 4482            | -             | 270                              | 4244                    | -                          | 1383       | 82                 | 11             |                       |  |            |  |          |  |
|   | HINTERRHEIN       | 1611 F        |                        | -24                              | 3359            | -                          | 151        | 1709                    | -             | 312                   | 80            | 32                    | 25            | 6105            | -             | 323                              | 4216                    | -                          | 1114       | 90                 | 31             |                       |  |            |  |          |  |
|   | WEISSFLUHJOCH     | 2690 G        |                        | -60                              | 3913            | -                          | 151        | 2197                    | -             | 625                   | 83            | -                     | -19           | 7971            | -             | 365                              | 4980                    | -                          | 1721       | 91                 | -              |                       |  |            |  |          |  |
| ⑩   | GR. ST. BERNHARD  | 2472 P        |                        | -49                              | 3750            | -                          | 151        | 1960                    | -             | 449                   | -             | 60                    | -7            | 7479            | -             | 356                              | 4727                    | -                          | 1337       | -                  | 59             |                       |  |            |  |          |  |
|   | MONTANA/VERMALA   | 1508 S        |                        | 11                               | 2831            | -                          | 151        | 1763                    | -             | 606                   | 69            | 21                    | 54            | 4971            | -             | 293                              | 4722                    | -                          | 1853       | 82                 | 20             |                       |  |            |  |          |  |
|   | SION              | 482 F         |                        | 50                               | 2098            | -                          | 129        | 1727                    | -             | 613                   | 77            | 22                    | 89            | 3547            | -             | 223                              | 4535                    | -                          | 1800       | 90                 | 21             |                       |  |            |  |          |  |
|   | ULRICHEN          | 1345 F        |                        | -18                              | 3268            | -                          | 151        | 1689                    | -             | 362                   | 60            | 14                    | 33            | 5682            | -             | 297                              | 4442                    | -                          | 1310       | 79                 | 15             |                       |  |            |  |          |  |
|   | VISP              | 640 F         |                        | 40                               | 2298            | -                          | 137        | 1691                    | -             | 539                   | 73            | 35                    | 83            | 3831            | -             | 234                              | 4443                    | -                          | 1628       | 89                 | 29             |                       |  |            |  |          |  |
|   | ZERMATT           | 1638 A        |                        | -1                               | 3027            | -                          | 151        | 1906                    | -             | 532                   | 79            | 18                    | 40            | 5524            | -             | 309                              | 4712                    | -                          | 1505       | 87                 | 18             |                       |  |            |  |          |  |
| ⑪   | CORVATSCH         | 3315 G        |                        | -89                              | 4355            | -                          | 151        | 2276                    | -             | 722                   | 89            | -                     | -49           | 9062            | -             | 365                              | 5328                    | -                          | 1888       | 92                 | -              |                       |  |            |  |          |  |
|   | SAMEDAN-ST.MORITZ | 1705 F        |                        | -34                              | 3519            | -                          | 151        | 1953                    | -             | 613                   | 88            | 21                    | 14            | 6512            | -             | 329                              | 4803                    | -                          | 1652       | 93                 | 22             |                       |  |            |  |          |  |
|   | SCUOL             | 1298 S        |                        | 11                               | 2831            | -                          | 150        | 2015                    | -             | 593                   | 86            | 16                    | 53            | 4855            | -             | 273                              | 4952                    | -                          | 1604       | 92                 | 13             |                       |  |            |  |          |  |
| ⑫   | LOCARNO-MAGADINO  | 197 F         |                        | 68                               | 1788            | -                          | 122        | 1250                    | -             | 640                   | 76            | 19                    | 109           | 3013            | -             | 210                              | 3712                    | -                          | 1801       | 86                 | 18             |                       |  |            |  |          |  |
|   | LOCARNO-MONTI     | 366 S         |                        | 76                               | 1682            | -                          | 124        | 1465                    | -             | 659                   | 79            | 12                    | 115           | 2814            | -             | 213                              | 4168                    | -                          | 1849       | 88                 | 11             |                       |  |            |  |          |  |
|   | LUGANO            | 273 F         |                        | 76                               | 1661            | -                          | 121        | 1283                    | -             | 600                   | 76            | 14                    | 118           | 2730            | -             | 208                              | 3910                    | -                          | 1719       | 86                 | 14             |                       |  |            |  |          |  |
|   | PIOTTA            | 1007 F        |                        | 37                               | 2423            | -                          | 149        | 1338                    | -             | 427                   | 66            | 29                    | 77            | 4042            | -             | 254                              | 3720                    | -                          | 1295       | 82                 | 27             |                       |  |            |  |          |  |
|   | POSCHIAVO/ROBBIA  | 1078 T        |                        | 34                               | 2485            | -                          | 151        | 1599                    | -             | 516                   | 81            | 19                    | 71            | 4197            | -             | 262                              | 4162                    | -                          | 1375       | 90                 | 16             |                       |  |            |  |          |  |
|   | SAN BERNARDINO    | 1639 T        |                        | -4                               | 3066            | -                          | 151        | 1555                    | -             | 416                   | 69            | 34                    | 36            | 5696            | -             | 320                              | 4129                    | -                          | 1289       | 84                 | 30             |                       |  |            |  |          |  |
| STABIO  | 353 F             |               | 61                     | 1915                             | -               | 127                        | 1401       | -                       | 594           | 85                    | 14            | 104                   | 3166          | -               | 217           | 3991                             | -                       | 1590                       | 96         | 12                 |                |                       |  |            |  |          |  |

Hinweis zu den Windstärke-Angaben

Permanente Windregistrierungen in Höhenlagen bis zu 3600 m ü.M. sind messtechnisch ein schwieriges Problem. Vor allem das Winterhalbjahr stellt hohe Ansprüche an die Instrumente von Bergstationen. Mit einer guten Beheizung kann allerdings in den mei-

sten Fällen eine drohende Vereisung unterdrückt werden. Schwieriger hingegen ist das gleichmässige Erfassen der Windstärke über einen Bereich von Null bis etwa 60 Meter/Sekunde. Entweder werden die Geräte robust gebaut und besitzen einen hohen Schwellenwert, oder man verwendet leichte Konstruktionen, die dann regelmässig von kräftigen Sturmböen beschädigt werden. Ein

Vergleich der mittleren Windgeschwindigkeit zwischen Standard- und Gebirgswindmesser ist deshalb nur bedingt möglich, d. h. nur bei Berücksichtigung der unterschiedlichen Schwellenwerte. Im Anetz sind folgende Stationen mit einem Gebirgswindmesser ausgerüstet: Chasseral, Corvatsch, Gütsch, Grand St. Bernard, Jungfrauoch, La Dôle, Moleson, Pilatus, Säntis, Weissfluhjoch.