

| Event | Wind | Note | Name | Country | Venue | Date |
|----------------------------------|------|-----------|----------------------|---------|--------|-----------|
| MEN | | | | | | |
| 100 Metres | | | | | | |
| 10.0 | | (10.25) | Armin Hary | FRG | Zürich | 21 Jun 60 |
| 9.77 | 1.0 | (9.762) | Asafa Powell | JAM | Zürich | 18 Aug 06 |
| 400 Metres | | | | | | |
| 43.29 | | | Butch Reynolds | USA | Zürich | 17 Aug 88 |
| 800 Metres | | | | | | |
| 1:41.24 | | | Wilson Kipketer | DEN | Zürich | 13 Aug 97 |
| 1500 Metres | | | | | | |
| 3:32.1 | | (3:32.03) | Sebastian Coe | GBR | Zürich | 15 Aug 79 |
| One Mile | | | | | | |
| 3:48.53 | | | Sebastian Coe | GBR | Zürich | 19 Aug 81 |
| 5000 Metres | | | | | | |
| 12:44.39 | | | Haile Gebrselassie | ETH | Zürich | 16 Aug 95 |
| 12:41.86 | | | Haile Gebrselassie | ETH | Zürich | 13 Aug 97 |
| 30000 Metres Steeplechase | | | | | | |
| 8:02.08 | | | Moses Kiptanui | KEN | Zürich | 19 Aug 92 |
| 7:59.18 | | | Moses Kiptanui | KEN | Zürich | 16 Aug 95 |
| 7:59.08 | | | Wilson Boit Kipketer | KEN | Zürich | 13 Aug 97 |
| 110 Metres Hurdles | | | | | | |
| 13.2 | 1.9 | (13.56) | Martin Lauer | FRG | Zürich | 7 Jul 59 |
| 13.2 | -0.9 | | Willie Davenport | USA | Zürich | 4 Jul 69 |
| 13.1 | 1.1 | (13.41) | Rod Milburn | USA | Zürich | 6 Jul 73 |
| 12.93 | -0.2 | | Renaldo Nehemiah | USA | Zürich | 19 Aug 81 |
| 12.92 | -0.1 | | Roger Kingdom | USA | Zürich | 16 Aug 89 |
| 120 Yards Hurdles | | | | | | |
| 13.2 | 1.9 | (13.56) | Martin Lauer | FRG | Zürich | 7 Jul 59 |
| 200 Metres Hurdles Bend | | | | | | |
| 22.5 | 1.2 | | Martin Lauer | FRG | Zürich | 7 Jul 59 |
| 4 x 100 Metres Relay | | | | | | |
| 37.67 | | | United States 1 | USA | Zürich | 7 Aug 91 |
| WOMEN | | | | | | |
| 100 Metres | | | | | | |
| 10.76 | 1.7 | | Evelyn Ashford | USA | Zürich | 22 Aug 84 |
| 1500 Metres | | | | | | |
| 3:52.47 | | | Tatyana Kazankina | URS | Zürich | 13 Aug 80 |
| One Mile | | | | | | |
| 4:16.71 | | | Mary Slaney | USA | Zürich | 21 Aug 85 |
| 4:12.56 | | | Svetlana Masterkova | RUS | Zürich | 14 Aug 96 |
| Discus Throw | | | | | | |
| 70.20 | | | Faina Melnik | URS | Zürich | 20 Aug 75 |