



## ***Rocky Enterprise Linux 9.2 Manual Pages on command 'sqrtl.3'***

**C:~>man sqrtl.3**

SQRT(3)                      Linux Programmer's Manual                      SQRT(3)

### NAME

sqrt, sqrtf, sqrtl - square root function

### SYNOPSIS

```
#include <math.h>
```

```
double sqrt(double x);
```

```
float sqrtf(float x);
```

```
long double sqrtl(long double x);
```

Link with `-lm`.

Feature Test Macro Requirements for glibc (see `feature_test_macros(7)`):

`sqrtf()`, `sqrtl()`:

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

```
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
```

```
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

### DESCRIPTION

These functions return the nonnegative square root of `x`.

### RETURN VALUE

On success, these functions return the square root of `x`.

If `x` is a NaN, a NaN is returned.

If `x` is `+0` (`-0`), `+0` (`-0`) is returned.

If `x` is positive infinity, positive infinity is returned.

If `x` is less than `-0`, a domain error occurs, and a NaN is returned.

## ERRORS

See `math_error(7)` for information on how to determine whether an error has occurred when calling these functions.

The following errors can occur:

Domain error:  $x$  less than  $-0$

`errno` is set to `EDOM`. An invalid floating-point exception (`FE_INVALID`) is raised.

## ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

??

?Interface            ? Attribute   ? Value   ?

??

?`sqrt()`, `sqrtf()`, `sqrtl()` ? Thread safety ? MT-Safe ?

??

## CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

The variant returning `double` also conforms to SVr4, 4.3BSD, C89.

## SEE ALSO

`cbrt(3)`, `csqrt(3)`, `hypot(3)`

## COLOPHON

This page is part of release 5.05 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.