

# NAG Fortran Library Routine Document

## F06EJF (DNRM2)

**Note:** before using this routine, please read the Users' Note for your implementation to check the interpretation of *bold italicised* terms and other implementation-dependent details.

### 1 Purpose

F06EJF (DNRM2) returns the Euclidean norm

$$\|x\|_2 = \sqrt{x^T x}$$

of the  $n$  element real vector  $x$ , via the function name.

### 2 Specification

```
double precision FUNCTION F06EJF (N, X, INCX)
  INTEGER                N, INCX
  double precision      X(*)
```

The routine may be called by its BLAS name *dnrn2*.

### 3 Description

None.

### 4 References

None.

### 5 Parameters

- |    |  |              |
|----|--|--------------|
| 1: | N – INTEGER  | <i>Input</i> |
|    | <i>On entry:</i> $n$ , the number of elements in $x$ .                                     |              |
| 2: | X(*) – <i>double precision</i> array   | <i>Input</i> |
|    | <i>On entry:</i> the vector $x$ .  |              |
| 3: | INCX – INTEGER   | <i>Input</i> |
|    | <i>On entry:</i> the increment in the subscripts of X between successive elements of $x$ . |              |
|    | <i>Constraint:</i> INCX > 0.   |              |

### 6 Error Indicators and Warnings

None.

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