

NAG 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 ***dnrm2***.

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> |
| | Note: the dimension of the array X must be at least $1 + (N - 1) INCX $. | |
| | <i>On entry:</i> the incremented array X must contain the n element 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.

7 Accuracy

Not applicable.

8 Further Comments

None.

9 Example

None.
