

# **IEEE Standard Performance Requirements for Communications and Control Cables for Application in High Voltage Environments**

Sponsor  
**Power Systems Communications Committee  
of the  
IEEE Power Engineering Society**

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**IEEE Standards Board**

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USA

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## Foreword

(This Foreword is not a part of IEEE Std 789-1988, IEEE Standard Requirements for Communications and Control Cables for Application in High Voltage Environments.)

Wire line communications and control cables either entering electric power stations or passing through their zone of influence are subjected to extraneous voltages that include the longitudinally induced voltage as well as the GPR voltage. The interfering voltages are frequently higher than the insulation withstand capability of ordinary outside-type telephone cables often used for such purposes. For more background information on these subjects the reader should refer to ANSI/IEEE Std 487-1980 [6], particularly Section 5.3 and Annex A14, which deal with these dedicated cables.

The problems of dielectric withstand become more acute where critical noninterruptable channels are involved and where the GPR is over 300 V.

This standard defines the performance requirements for communications and control cables suitable for these classes of service.

This standard was prepared and approved by a Working Group of the Wire Line Subcommittee of the Power Systems Communications Committee, IEEE Power Engineering Society, which had the following membership at the time of approval:

**G.Y.R. Allen, *Chairman***  
**G.E. Burrige, *Vice Chairman***

A. Klopfenstein  
L.J. Perfecky

I.A. Stewart  
R.K. Sullivan

J.M. Thorson  
M. Tibensky

The contributions from the following other IEEE members at the initial and at various stages of development is appreciated:

M.J. Anna  
G.L. Atyeo  
H.M. Hutson

T.A. Kommers  
J.L. Laidig  
W.J. Lannes

V.W. Pehrson  
G.D. Stewart  
J.J. Woods

In the early stages of development of this standard, input was provided by the Insulated Cable Engineers Association through their Messrs. E. Laing and E. Metcalf.

The following persons were on the balloting committee that approved this document for submission to the IEEE Standards Board:

M.C. Adamson  
G.Y.R. Allen  
W.P. Bartley  
J. Balilesco  
G.G. Beaudoin  
R.W. Beckwith  
W. Blair  
J. Blose  
S. Bogdanowicz  
G. Burrige  
J.B. Caldwell  
T.J. Comerford  
R.S. Curtis  
H.I. Dobson  
J.R. Elwood

D.C. Erickson  
H.J. Fiedler  
J.C. Gambale  
C. Gilchrist  
J. Gohari  
A. Haben  
P.R. Hanson  
D.L. Hedrick  
D.R. Jernigan  
A. Klopfenstein  
M.J. Leib  
H. Lensner  
R.L. Linden

D.J. Marihart  
D.M. Morton  
G. Nissen  
L.J. Perfecky  
M.C. Perz  
P.J. Pongracz  
R.E. Ray  
I.A. Stewart  
R.K. Sullivan  
T. Swingle  
J.M. Thorson, Jr  
J. Tovar  
J. Wallace  
M. Weinreb  
J. White

When the IEEE Standards Board approved this standard on June 9, 1988, it had the following membership:

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Arthur A. Blaisdell  
Fletcher J. Buckley  
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Jay Forster\*  
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Kenneth D. Hendrix  
Theodore W. Hissey, Jr.

John W. Horch  
Jack M. Kinn  
Frank D. Kirschner  
Frank C. Kitzantides  
Joseph L. Koepfinger\*  
Irving Kolodny  
Edward Lohse  
John E. May, Jr.  
Lawrence V. McCall

L. Bruce McClung  
Donald T. Michael\*  
Richard E. Mosher  
L. John Rankine  
Gary S. Robinson  
Frank L. Rose  
Helen M. Wood  
Karl H. Zaininger  
Donald W. Zipse

\*Member Emeritus

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