

UL 67

STANDARD FOR SAFETY

Panelboards



JULY 31, 2020 - UL 67 tr1

UL Standard for Safety for Panelboards, UL 67

Thirteenth Edition, Dated May 15, 2018

SUMMARY OF TOPICS:

This revision of ANSI/UL 67 dated July 31, 2020, includes the following changes in requirements:

Addition of New Requirements in Article 705 of the 2020 NEC to UL 67; <u>6.6.11</u>, <u>6.6.12</u>, <u>6.6.13</u>, <u>31.2</u>, <u>34.16.5</u>, <u>34.16.7</u>.

Correction to Table 25.3

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated February 14, 2020.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of UL.

UL provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will UL be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if UL or an authorized UL representative has been advised of the possibility of such damage. In no event shall UL's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold UL harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

tr2 JULY 31, 2020 - UL 67

No Text on This Page

This is a preview. Click here to purchase the full publication.

MAY 15, 2018

(Title Page Reprinted: July 31, 2020)



1

UL 67

Standard for Panelboards

First Edition – November, 1917
Second Edition – July, 1928
Third Edition – April, 1931
Fourth Edition – March, 1941
Fifth Edition – November, 1948
Sixth Edition – May, 1965
Seventh Edition – July, 1967
Eighth Edition – August, 1974
Ninth Edition – August, 1979
Tenth Edition – October, 1988
Eleventh Edition – December, 1993
Twelfth Edition – March, 2009

Thirteenth Edition

May 15, 2018

This ANSI/UL Standard for Safety consists of the Thirteenth Edition including revisions through July 31, 2020.

The most recent designation of ANSI/UL 67 as an American National Standard (ANSI) occurred on June 30, 2020. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

The Department of Defense (DoD) has adopted UL 67 on June 18, 1990. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

UL's Standards for Safety are copyrighted by UL. Neither a printed nor electronic copy of a Standard should be altered in any way. All of UL's Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of UL.

COPYRIGHT © 2020 UNDERWRITERS LABORATORIES INC.

This is a preview. Click here to purchase the full publication.

No Text on This Page

CONTENTS

	·IT	ъ.	$\overline{}$			~	-1	\sim	N.
Ш	ΝT	ĸ	U	υ	u	U	ıı	U	IN

ı	Scope	
2	Components	7
3	Units of Measurement	
4	Undated References	
5	Glossary	
5	Glossary	
CONST	RUCTION	
CONSI	RUCTION	
6	General	17
	6.1 All panelboards	
	6.2 Equipment on supply side of disconnect	
	6.3 Distribution equipment	
	6.4 Service equipment	
	6.5 Branch circuits	
	6.6 Electrical connections	
	6.7 Field installable equipment	
7	Enclosure	
	7.1 General	23
	7.2 Component arrangement	24
	7.3 Ventilating openings	24
8	Bases and Supports – Insulating Material	25
9	Covers, Barriers, and Partitions	
	9.1 General	
	9.2 Bushings	
10	<u> </u>	
11		
' '	11.1 General	
	11.2 Bus bars, supports	
	11.3 Ampacity General	
	11.4 Main unit ratings	
	11.5 Neutral	
	11.6 Fuseholders and circuit breakers	
12	Wiring Terminals	40
	12.1 General	40
	12.2 Screw terminals	42
13		
	13.1 General	
	13.2 Input connections	
	13.3 Output connections	
14	·	
17	14.1 General	
	14.1 General 14.2 Ratings	
	14.3 Main and main-disconnect switches and circuit breakers	
	14.4 Switches	
	14.5 Overcurrent protective devices	
	14.6 Lighting and appliance panelboards	
	14.7 Fuseholders	
	14.8 Panelboards with integral inlet	49
15	Ground-Fault Protection	49
16		
. •	16.1 General	

	16.2 Switches	
	16.3 Barriers and liners	55
	16.4 Tape	57
	16.5 Tubing	
17	Wiring Space, Wiring Gutters, and Wire Bending Space	
• • •	17.1 General	
	17.2 Wiring space, wiring gutters, and terminal compartments	
	17.3 Wire deflection and bending space	
	17.3 Wife deflection and bending space	
40		
18	Grounding and Bonding	
	18.1 General	
	18.2 Equipment-grounding terminals	
19	Sharp Edges	
20	Separation of Circuits	78
PERFOR	RMANCE	
21	Temperature Test	78
۷ ۱	21.1 General	
	21.2 Main lug	
	21.3 Main circuit breaker	
	21.4 Neutral	
	21.5 Clamped joints	
	21.6 Other bus bar coatings	
	21.7 Joints with insulators	84
22	Rain Test	84
23	Strength of Insulating Base and Support Test	85
24	Mold Stress Relief Test	
25	Short-Circuit Current Test	
	25.1 General	
	25.2 Sample selection	
	25.3 Sample preparation	
	25.4 Line connections	
	25.5 Load connections	
	25.6 Fuses	
	25.7 Meter mounting positions	
	25.8 Short-circuit procedure	95
	25.9 Short-circuit tests	97
	25.10 Evaluation of test results	98
26	Dielectric Voltage-Withstand Test	
	26.1 General	
	26.2 Joints with insulators	
	26.3 After short circuit	
	26.4 Insulating barriers	
07		
27	Bonding Resistance Test	
28	Test Requirements for Panelboards Used as Transfer Equipment	100
MANUFA	ACTURING AND PRODUCTION TESTS	
29	Ground-Fault Protection Test	100
RATING		
30	General	101
31	Current	

32	Voltage	102
33	Short Circuit Current – Details	103
MARKIN	G	
34	Details	
	34.1 General	
	34.2 Wiring space and terminals	
	34.3 Field-installed conductors	
	34.4 Arrangement of terminals	
	34.5 Tightening torque	
	34.6 Enclosure type marking	
	34.7 Switches and circuit breakers	
	34.8 Lighting and appliance panelboards	
	34.40 Service equipment	
	34.10 Ground-fault protection	
	34.11 Distribution equipment	
	34.12 Field-installed equipment	
	34.13 Equipment-grounding terminals	
	34.14 Filler plates	
	34.15 Neutral	
	34.16 Parallel Power Source Panelboard	
	34.17 Panelboard with connection to Uninterruptible Power Supply	
35	34.18 Panelboard with provisions for cord connections Permanence of Marking	
	Field Testing of Ground-Fault Protection of Equipment	
PANELB	OARDS FOR MARINE USE	
SA1	Scope	123
SA2	•	
SA3		
SA4	, ,	
SA5		
SA6		
	MENT SB – CLASSIFIED CIRCUIT BREAKERS FOR USE WITH SPECIFIED PAN AS AN ALTERNATE FOR SPECIFIED CIRCUIT BREAKERS	ELBOARDS
INTRODU	UCTION	
SB1	Scope	125
SB2	·	
CONSTR		
SB3	General	125

PERFORM	IANCE
SB4 SB5 SB6 SB7	General125Insertion and Withdrawal Test126Temperature Test126Short-Circuit Current Test126
MARKING	
SB8	Details
	ENT SC – CLASSIFIED MOLDED-CASE SURGE PROTECTIVE DEVICES (SPDs) FOR USE ITH SPECIFIED PANELBOARDS
INTRODU	CTION
SC1 SC2	Scope 129 Glossary 129
CONSTRU	CTION
SC3	General
PERFORM	IANCE
SC4 SC5	General
MARKING	
SC6	Details
APPENDIX	(A Standards for Components

Appendix B (Informative) Explanatory Information Regarding Wire Deflection And Bending Distances

INTRODUCTION

1 Scope

- 1.1 These requirements cover panelboards to be employed in accordance with the National Electrical Code, NFPA 70.
- 1.2 These requirements cover panelboards for the control and protection electrical circuits.
- 1.3 These requirements do not cover:
 - a) Distribution equipment which sole function is the automatic or nonautomatic transferring of one or more load conductor connections from one power source to another. Reference the Standard for Transfer Switch Equipment, UL 1008.
 - b) Factory wired assemblies of industrial control equipment intended to control industrial processes. Reference the Standard for Industrial Control Panels, UL 508A.
 - c) Distribution equipment containing only one circuit subdivision, unless also provided with a meter socket. See <u>6.5.1</u>. Reference the Standard for Molded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures, UL 489.
 - d) Distribution equipment intended to serve as a means for distributing power required to operate mobile or temporarily installed equipment. Reference the Standard for Power Outlets, UL 231.
 - e) Factory wired assemblies of controllers, timers, temperature regulating equipment and such, intended for control of equipment for use with swimming pools, hot tubs, and/or spas. Reference the Standard for Electric Spas, Equipment Assemblies, and Associated Equipment, UL 1563.
 - f) Factory wired assemblies intended for the control of Architectural and Floating Fountains. Reference the Standards for Motor-Operated Water Pumps, UL 778, Underwater Luminaires and Submersible Junction Boxes, UL 676 and Industrial Control Panels, UL 508A.
 - g) Portable power distribution equipment. Reference the Standard for Portable Power-Distribution Equipment, UL 1640.
 - h) Panelboards with converter and/or inverter functions, intended for use as distribution equipment in recreational vehicles. Reference the Standard for Power Converters/Inverters and Power Converter/Inverter Systems for Land Vehicles and Marine Crafts, UL 458.

2 Components

- 2.1 Except as indicated in 2.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix \underline{A} for a list of standards covering components generally used in the products covered by this standard.
- 2.2 A component is not required to comply with a specific requirement that:
 - a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or
 - b) Is superseded by a requirement in this standard.
- 2.3 A component shall be used in accordance with its rating established for the intended conditions of use.