



JOINT CANADA-UNITED STATES
NATIONAL STANDARD

STANDARD FOR SAFETY

ANSI/CAN/UL-3030:2018, Unmanned Aircraft Systems



ANSI/UL 3030-2018



Standards Council of Canada
Conseil canadien des normes

This is a preview. [Click here to purchase the full publication.](#)

SCC FOREWORD

National Standard of Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

UL Standard for Safety for Unmanned Aircraft Systems, UL 3030

First Edition, Dated September 18, 2018

Summary of Topics

The First Edition of Standard for Unmanned Aircraft Systems, ANSI/CAN/UL 3030 has been issued.

The requirements are substantially in accordance with Proposal(s) on this subject dated October 6, 2017 and May 18, 2018.

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.

No Text on This Page



ANSI/UL 3030-2018



SEPTEMBER 18, 2018

1

UL 3030

Standard for Unmanned Aircraft Systems

First Edition

September 18, 2018

This ANSI/CAN/UL Safety Standard consists of the First Edition.

The most recent designation of ANSI/UL 3030 as an American National Standard (ANSI) occurred on September 18, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been approved as a National Standard of Canada (NSC) by the Standards Council of Canada (SCC).

COPYRIGHT © 2018 UNDERWRITERS LABORATORIES INC.

No Text on This Page

CONTENTS

Preface (UL)	5
--------------------	---

INTRODUCTION

1 Scope	7
2 Components	8
3 Units of Measurement	8
4 Undated References	8
5 Normative References	8
6 Glossary	12

CONSTRUCTION

7 General	15
8 Nonmetallic Materials	15
9 Metallic Materials	17
10 Enclosures	17
11 Assembly	18
12 Internal Wiring and Terminals	18
13 Chargers	20
14 Insulation Levels and Protective Grounding	20
15 Protection Circuits and Safety Analysis	21
16 Printed Wiring Boards	23
17 Battery Cells and Battery Packs	23
17.1 General	23
17.2 Battery cells	24
17.3 Battery packs	24
18 Motors	25
19 Spacings and Separation of Circuits	25
20 Fuses	26
21 Accessories	26

PROTECTION AGAINST INJURY

22 Sharp Edges	26
23 Strength of Enclosures	26

PERFORMANCE

24 General	27
25 Tolerances	29
26 Post-Test Cycle	29
27 Input Verification	30
28 Temperature Test (Charging and Flying)	30
29 Dielectric Voltage Withstand Test	33
30 Isolation Resistance Test	34
31 Capacitor Discharge Test	35
32 Abnormal Operation	35
32.1 General	35
32.2 Component faults	36