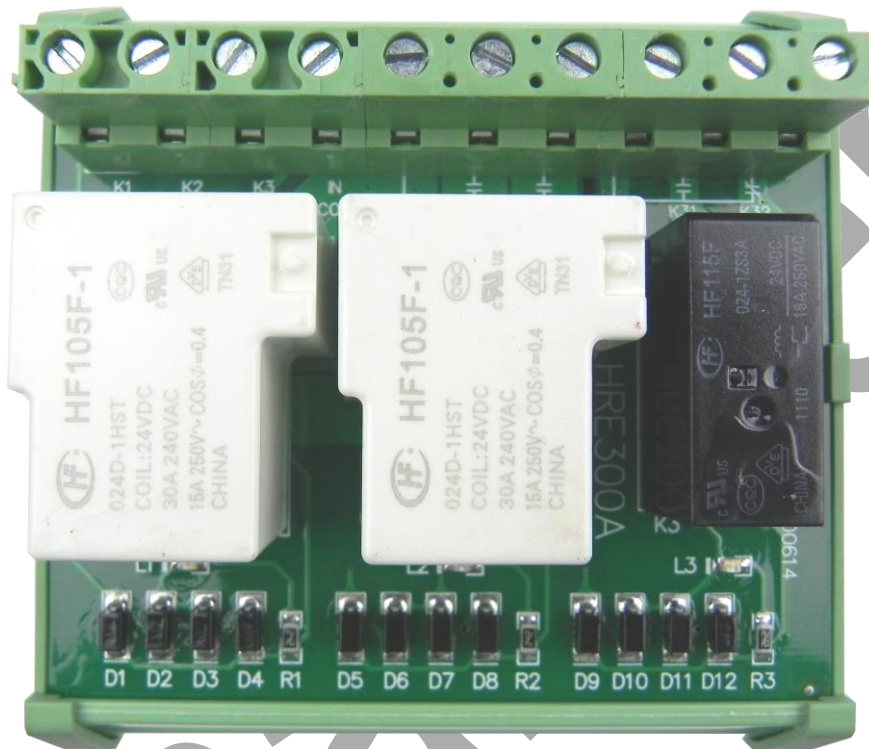


Smartgen[®]

HRE300A RELAY EXPANSION MODULE

USER MANUAL



Smartgen Technology



众智电子 Chinese trademark

Smartgen[®] English trademark

Smartgen — make your generator *smart*

Smartgen Technology Co., Ltd.

No. 28 Jinsuo Road

Zhengzhou City

Henan Province

P. R. China

Tel: +86-371-67988888

+86-371-67981888

+86-371-67991553

+86-371-67992951

+86-371-67981000(overseas)

Fax: 0086-371-67992952

Web: <http://www.smartgen.com.cn/>

<http://www.smartgen.cn/>

Email: sales@smartgen.cn

All rights reserved. No part of this publication may be reproduced in any material form (including photocopying or storing in any medium by electronic means or other) without the written permission of the copyright holder.

Smartgen Technology reserves the right to change the contents of this document without prior notice.

If colors of actual products are different from those mentioned within this manual, please take the actual product as the standard.

Software Version

Date	Version	Content
2014-10-12	1.0	Original release

Contents

1. OVERVIEW.....	4
2. 3-CHANNEL RELAY OUTPUT EXPANSION.....	5
3. SCHEMATIC DIAGRAM.....	6
4. TYPICAL WIRING DIAGRAM.....	7
5. CASE DEMENSION.....	8

SmartGen

1. OVERVIEW

HRE300A relay expansion module features modular design, large contact capacity, compact structure, small volume and easy installation. It is ready for getting stuck in variety guide rail and the voltage polarity can be reversed.

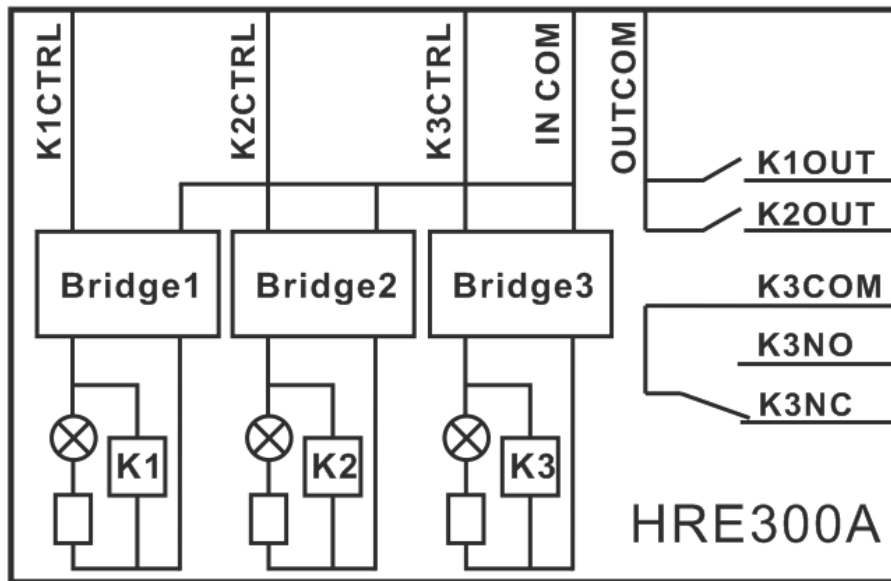
SmartGen

2.3-CHANNEL RELAY OUTPUT EXPANSION

1. Relay K1: active contact output, 30A, DC28V, coil power \leq 0.9W;
2. Relay K2: active contact output, 30A, DC28V, coil power \leq 0.9W;
3. Relay K3: passive contact output, 16A, AC250V, coil power \leq 0.4W;

SmartGen

3. SCHEMATIC DIAGRAM



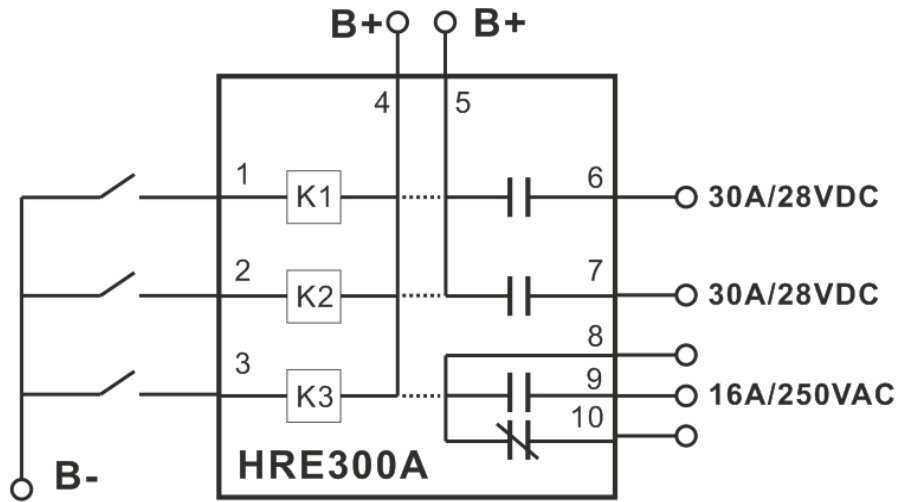
▲ Note: In the above drawing, K1-K3 stand for relay coil while Bridge1-Bridge3 are bridge rectifier circuit.

Terminal Description

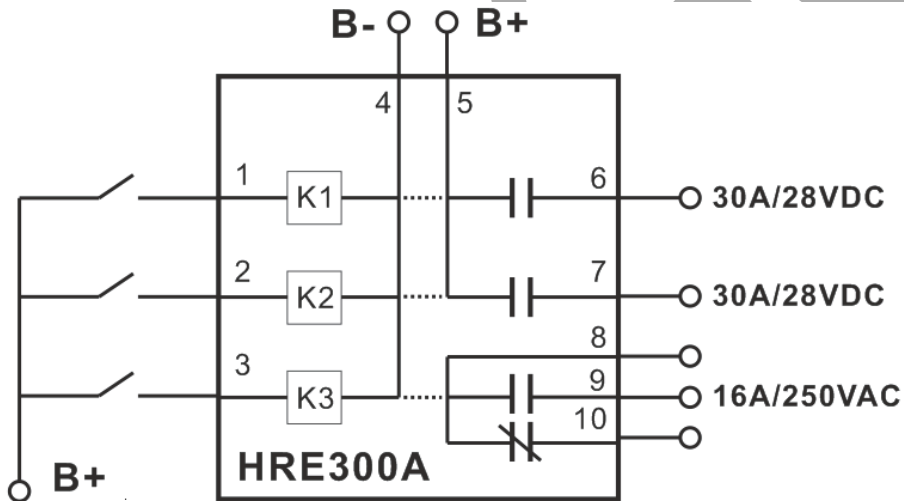
NO.	SIGN	DESCRIPTION	REMARKS
1	K1 CTRL	K1 coil input	Active when input polarity opposite to IN COM
2	K2 CTRL	K2 coil input	Active when input polarity opposite to INCOM
3	K3 CTRL	K3 coil input	Active when input polarity opposite to INCOM
4	IN COM	K1、 K2 common input	Battery positive/negative
5	OUT COM	K1、 K2、 K3 common output	Battery positive
6	K1 OUT	K1 normally open contact output	Active contact output, contact capacity 30A/DC28V
7	K2 OUT	K2 normally open contact output	Active contact output, contact capacity 30A/DC28V
8	K3 COM	K3 common port	Passive contact output , contact capacity 16A/AC250V
9	K3 NO	K3 normally open contact output	
10	K3 NC	K3 normally close contact output	

4. TYPICAL WIRING DIAGRAM

I The common port of relay's control coil connect to battery positive.

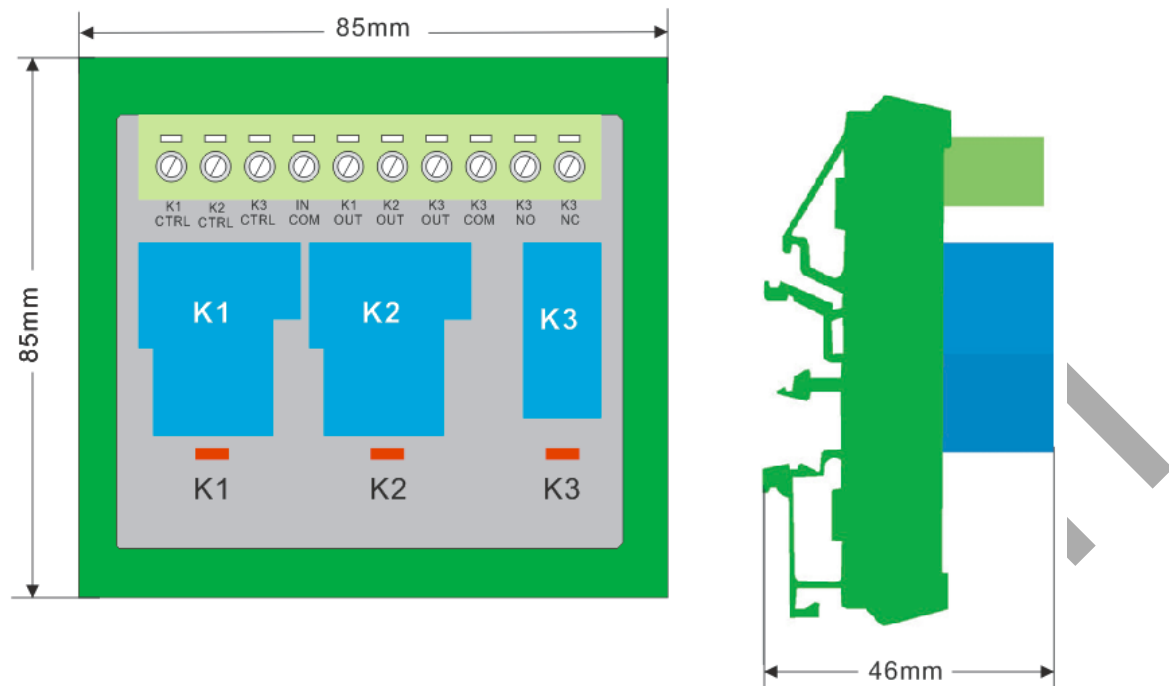


II The common port of relay's control coil connect to battery negative.



Note: In the above drawings, B+ stand for battery positive, B- stand for battery negative, K1-K3 means relay module with bridge rectifier. When the control signals of input port 1,2,3 are active, the corresponding output ports 6,7,9 will close. In addition, port 10 will open when port 9 is closed.

5. CASE DEMENSION



▲ Note: The corresponding red indicator will illuminate when K1,K2,K3 control coil is powered on.

Please specify 12V or 24V when ordering.