

i-Autoc

Your Automation Partner



Innovation

Automation

Unique

Technology

Optimization

Commitment

Product Selection

Core value

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About us

Kudom Electronics is a national high-tech enterprise which is in compliance with the intellectual property management system. The company is a ISO9001:2015, ISO14001:2015 & OHSAS18001:2007 certified enterprise, and has a professional R&D team with more than 20 years of experience in product design and manufacturing process.

Kudom Electronics has a product testing center with complete facilities for wide range of performance and reliability tests. Kudom electronics provides more than 50 categories, with over 3000 kinds of specifications of various types of power semiconductor switching products. Kudom Electronics was the first company that launched the intelligent switching parts with self-detection, self-diagnosis, and networked functions products in the same industry. Our products are in compliance with IEC62314, IEC60947, IEC60335, IEC61000 and other international standards, and most of the products are certified by CE, TUV, UL, CCC, S-mark and other agency approvals. We also provide customized products.

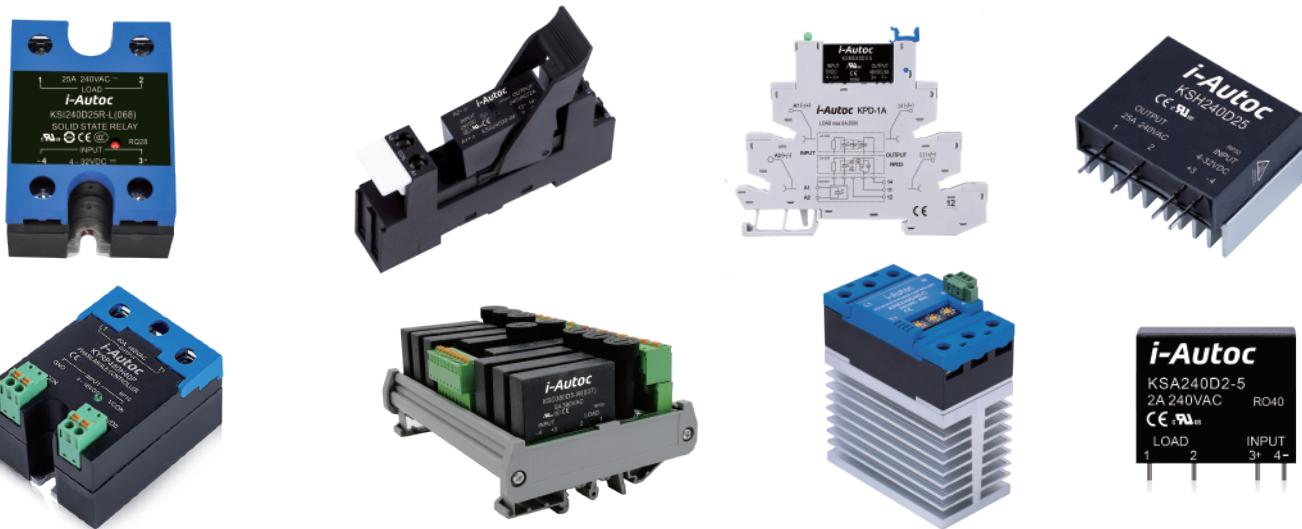
Our advantages:

Globalization: i-Autoc distribution network covers more than 50 countries and territories, which enables us to provide
★ strong technical support with quick responses.

Professional: i-Autoc owns more than 20 patents. We are not only specializing in the manufacturing of standard &
★ intellectual solid state relays, but also keep researching and developing the high performance Triac & SCR, which are the key components of solid state relays.

Reliability: Most of i-Autoc products are approved by CCC, UL, TUV, S-mark and CE. We are the reliable cooperation
★ partner with high quality products and services, and we are also available to provide customized products.

Innovation: Based on the fundamental technology of SSR's, we also offer the intellectual, high-efficient and customized
★ products, such as motor reversing modules, voltage regulator modules, industrial modules, etc.



Product Selection

PCB Mount

AC Output

KSA	01
KS _B	01
KSC	01
KSD	01
KSG	02
KSH	02
KSG3R	02

DC Output

KSF	02
KSL	03
KSCD	03
KSGD	03
KG3RD	03

Panel Mount

Single Phase | AC Output

KSIM	04
KSIM(045)	04
KSI	04
KSI(068)	04
KSI(083)	05
KSU	05
KSIA	05
KSID	05

Single Phase | DC Output

KSJ	06
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Three Phase | AC Output

KSQF	06
KSQC	06

DIN Rail Mount

KSV	07
KST	07
KSG***D	07
KSMA***D	07
KSG3R***D	08
KSGD***D	08
KSMD***D	08
KG3RD***D	08

Industrial Module

DRA-1/KSD	09
DRA-2/KSD	09
DRA-4/KSD	09
DRA-8/KSD	09
DRA-1/KSF	10
DRA-2/KSF	10
DRA-4/KSF	10
DRA-8/KSF	10

Motor Reversing

KMB	11
KMC	11
KMS	11
KSJD	12
KMTY	12
KMTYM	12

Voltage Regulator

KRB	13
KWR	13
KYR	13
KYRT	13

Intelligent Module

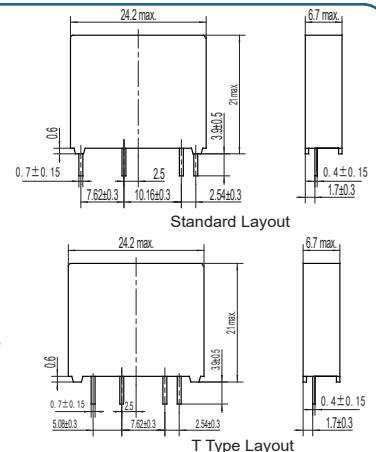
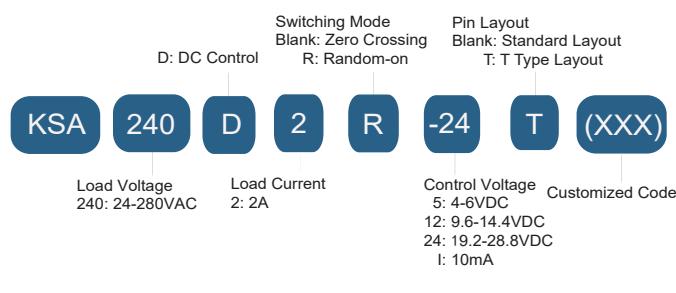
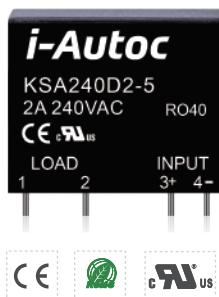
BCA	14
DRC	14
DRD	14
DRF	14

Accessories

Heat Sink	15-16
Thermal Pad	17
Din Rail Clip	17
Socket	17
Protection Cover	17

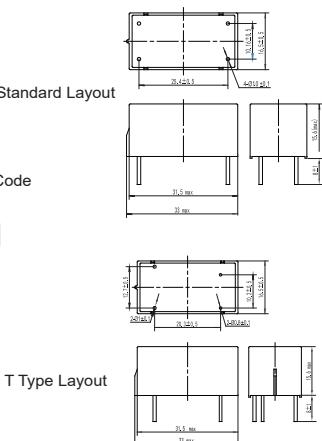
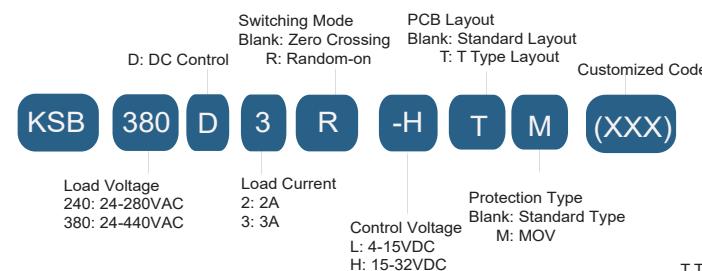
KSA Series AC Output

Output: AC Current Range: 2A



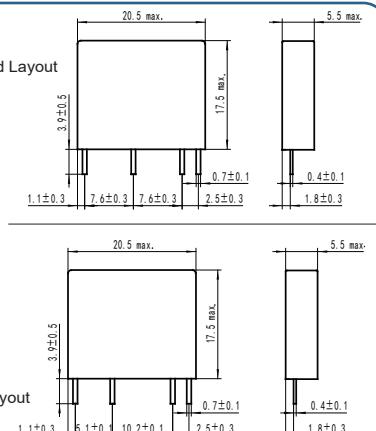
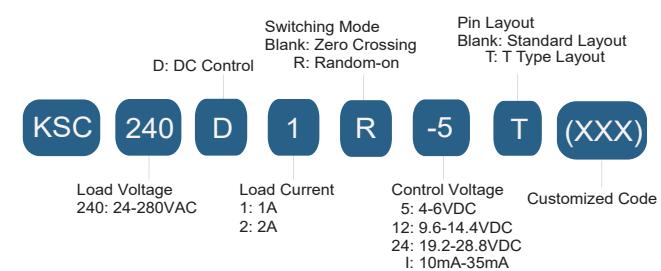
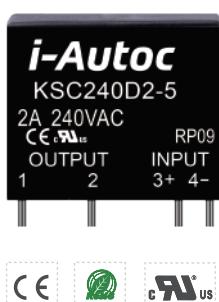
KSB Series AC Output

Output: AC Current Range: 2A - 3A



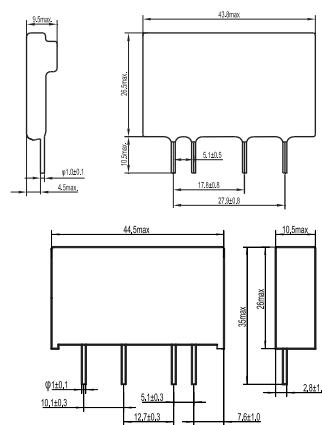
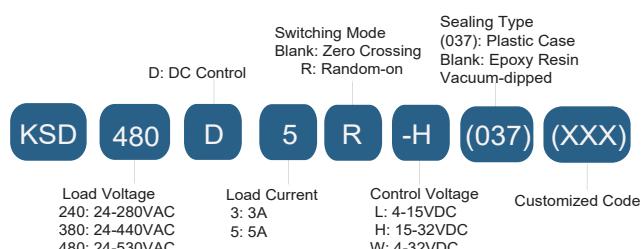
KSC Series AC Output

Output: AC Current Range: 1A - 2A



KSD Series AC Output

Output: AC Current Range: 3A-5A



KSG Series AC Output

Output: AC Current Range: 2A-3A



KSG

240

D: DC Control

2

R

Switching Mode
Blank: Zero Crossing
R: Random-onBlank: Without Socket
D: With Socket

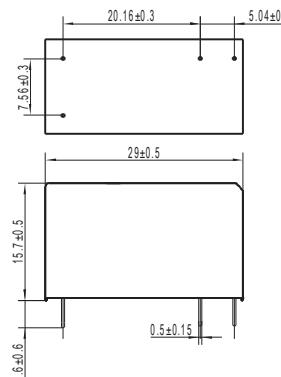
-5

D

(XXX)

Load Voltage
240: 24-280VAC
380: 24-440VACLoad Current
2: 2A
3: 3AControl Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

Customized Code



KSH Series AC Output

Output: AC Current Range: 25A



KSH

D: DC Control

240

D

25

Switching Mode
Blank: Zero Crossing
R: Random-on

Customized Code

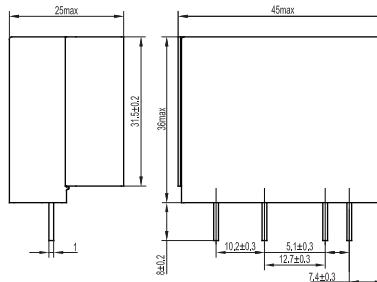
R

T

(XXX)

Load Voltage
240: 240VAC
480: 480VAC
600: 600VACLoad Current
25: 25A

T: TVS



KSG3R Series AC Output

Output: AC Current Range: 2A-3A



KSG3R

D: DC Control

380

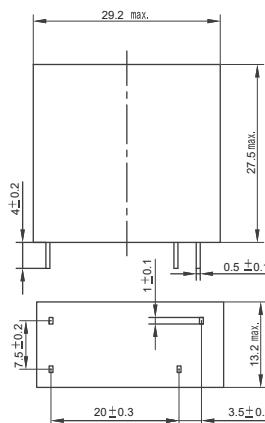
Switching Mode
Blank: Zero Crossing
R: Random-onBlank: Without Socket
D: With Socket

D

(XXX)

Load Voltage
240: 24-280VAC
380: 24-440VACLoad Current
2: 2A
3: 3AControl Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

Customized Code



KSF Series DC Output

Output: DC Current Range: 5A



KSF

D: DC Control

48

D

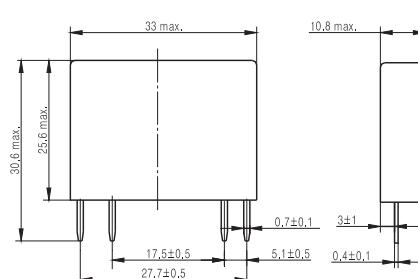
5

-24

(XXX)

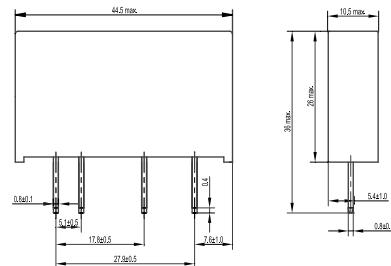
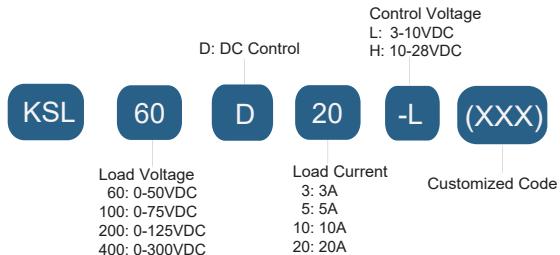
Load Voltage
48: 0-48VDC
100: 0-100VDCLoad Current
5: 5AControl Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC
W: 4-32VDC

Customized Code



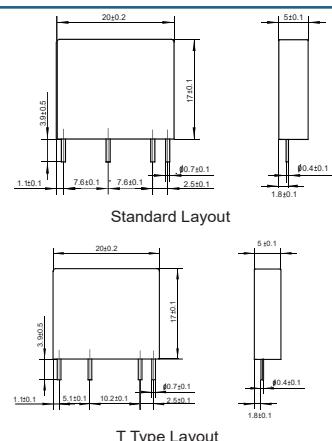
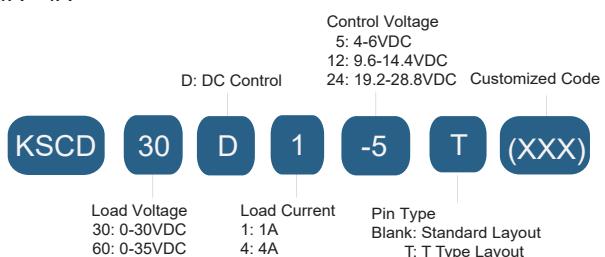
KSL Series DC Output

Output: DC Current Range: 3A - 20A



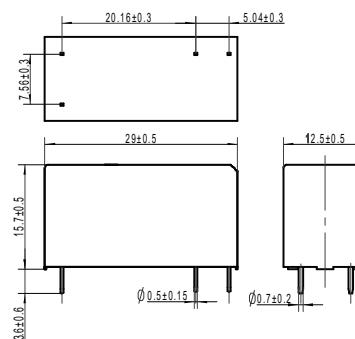
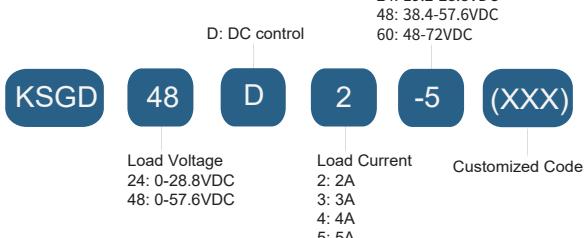
KSCD Series DC Output

Output: DC Current Range: 1A - 4A



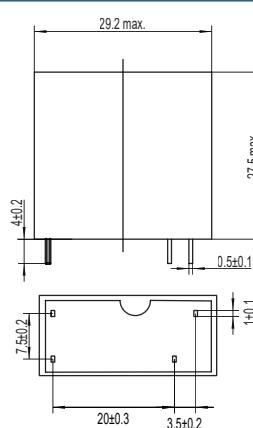
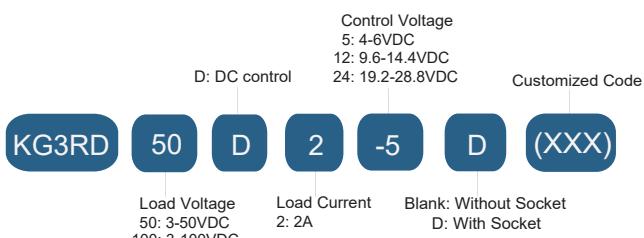
KSGD Series DC Output

Output: DC Current Range: 2A - 5A



KG3RD Series DC Output

Output: DC Current Range: 2A



Panel Mount

KSIM Series Mini Single Phase AC Output

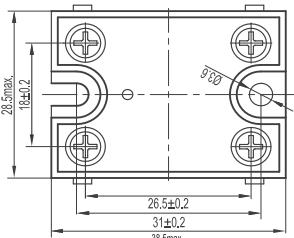
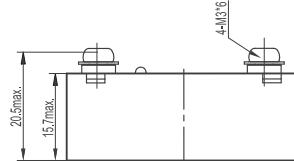
Output: AC Current Range: 10A-25A



Control Voltage D: 4-32VDC
 Switching Mode Blank: Zero Crossing
 R: Random-on
 Protection Type Blank: Standard Type
 M: MOV
 T: TVS
 KSIM 380 D 25 R -L M (XXX)

Load Voltage 240: 24-280VAC
 380: 24-440VAC
 Load Current 10: 10A
 16: 16A
 25: 25A

L: LED
 Customized Code



KSIM (045) Series Mini Single Phase AC Output

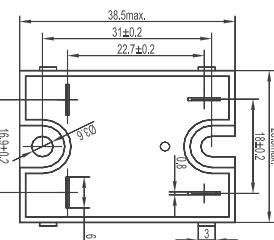
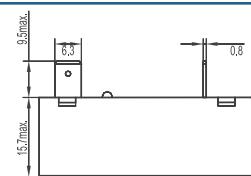
Output: AC Current Range: 10A-25A



Control Voltage D: 4-32VDC
 Switching Mode Blank: Zero Crossing
 R: Random-on
 Quick-Connect Terminal
 KSIM 240 D 25 R -L (045) M (XXX)

Load Voltage 240: 24-280VAC
 380: 24-440VAC
 Load Current 10: 10A
 16: 16A
 25: 25A

L: LED
 Protection Type Blank: Standard Type
 M: MOV
 T: TVS



KSI Series Single Phase AC Output

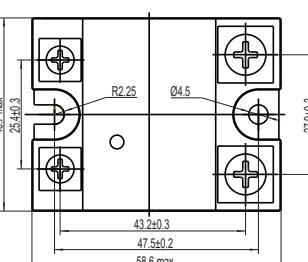
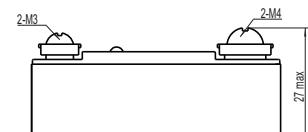
Output: AC Current Range: 25A-60A



Control Voltage A: 90-280VAC
 D: 4-32VDC
 Switching Mode Blank: Zero Crossing
 R: Random-on
 Protection Type Blank: Standard Type
 M: MOV
 T: TVS
 KSI 600 D 60 R -L M (XXX)

Load Voltage 240: 48-280VAC
 480: 48-530VAC
 600: 48-660VAC
 Load Current 25: 25A
 40: 40A
 60: 60A

L: LED
 Customized Code



KSI(068) Series Single Phase AC Output

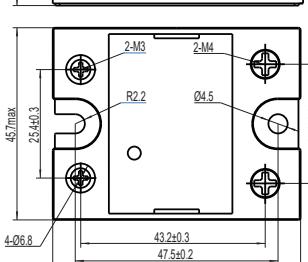
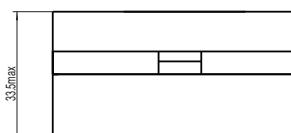
Output: AC Current Range: 25A-80A



Control Voltage A: 90-280VAC
 D: 4-32VDC
 Switching Mode Blank: Zero Crossing
 R: Random-on
 Protection Type Blank: Standard Type
 M: MOV
 T: TVS
 Customized Code
 KSI 240 D 25 R -L M (068) (XXX)

Load Voltage 240: 48-280VAC
 480: 48-530VAC
 600: 48-660VAC
 Load Current 25: 25A
 40: 40A
 60: 60A
 80: 80A

L: LED
 IP20 Cover

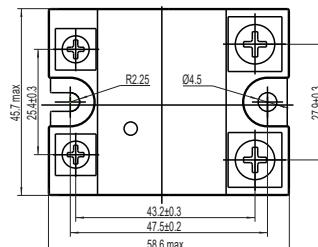
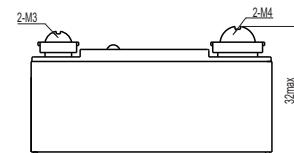


KSI(083) Series Single Phase AC Output

Output: AC Current Range: 80A-125A



	Control Voltage A: 90-280VAC D: 4-32VDC	Switching Mode Blank: Zero Crossing R: Random-on	Protection Type Blank: Standard Type M: MOV T: TVS
KSI	240	D	125
R	-L	M	(083)
Load Voltage 240: 48-280VAC 480: 48-530VAC 600: 48-660VAC	Load Current 80: 80A 100: 100A 125: 125A	L: LED	083: Higher Profile



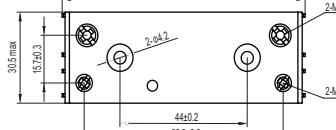
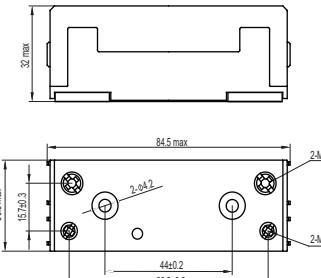
KSU Series Single Phase AC Output

Output: AC Current Range: 30A-75A



	Control Voltage A: 90-280VAC D: 4-32VDC	Switching Mode Blank: Zero Crossing R: Random-on	Protection Type Blank: Standard Type M: MOV T: TVS
KSU	240	D	30
R	-L	M	(XXX)

Load Voltage 240: 24-280VAC 600: 24-660VAC	Load Current 30: 30Amp 50: 50Amp 75: 75Amp	L: LED	Customized Code
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KSIA Series Single Phase AC Output

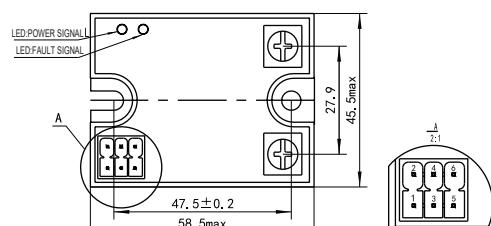
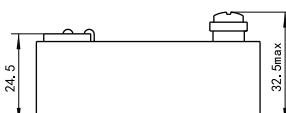
Output: AC Current Range: 25A-100A

Built in Function: SCR Short Circuit, Open Circuit and Error Self-Inspection



	Control Voltage D: DC	Blank: Negative Trigger P: Positive Trigger
KSIA	600	D
-P	-L	(XXX)

Load Voltage 240: 150-280VAC 480: 150-530VAC 600: 300-660VAC	Load Current 25: 25A 40: 40A 60: 60A 80: 80A 100: 100A	L: LED	Customized Code
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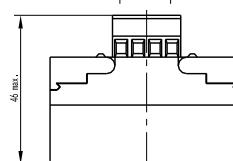
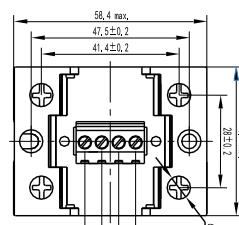
KSID Series Dual Pole AC Output

Output: AC Current Range: 25A-50A



	Control Voltage LD: 4-15VDC HD: 15-32VDC D: 4-32VDC	Switching Mode Blank: Zero Crossing R: Random-on	Customized Code
KSID	240	LD	25
R	P	(XXX)	

Load Voltage 240: 24-280VAC 480: 24-530VAC 600: 24-660VAC	Load Current 25: 25A 40: 40A 50: 50A 75: 75A	Blank: 4 Pin Connector P: Screw Terminal
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Panel Mount

KSJ Series Single Phase DC Output

Output: DC Current Range: 7A-100A



KSJ

100

Control Voltage
D: 4-32VDC

Load Current
7: 7A 40: 40A

10: 10A 50: 50A

20: 20A 80: 80A

25: 25A 100: 100A

30: 30A

L: LED

Customized Code (XXX)

Load Voltage
30: 0-24VDC

50: 0-36VDC

60: 0-48VDC

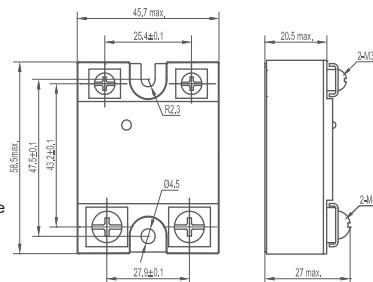
100: 0-75VDC

200: 0-120VDC

400: 0-300VDC

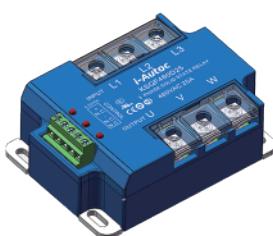
600: 0-500VDC

1200: 0-650VDC



KSQF Series Three Phase AC Output

Output: AC Current Range: 25A-80A



KSQF

480

Control Voltage
A: 90-280VAC
D: 4-32VDC

Switching Mode
Blank: Zero Crossing
R: Random-on

D

80

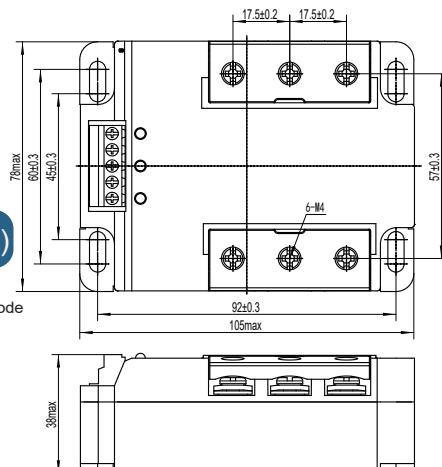
R

(XXX)

Load Voltage
480: 24-530VAC
600: 24-660VAC

Load Current
25: 25A
40: 40A
60: 60A
80: 80A

Customized Code



KSQC Series Three Phase AC Output

Output: AC Current Range: 25A-80A

Built In Function: Phase-loss Protection / Over Temperature Protection / SCR Fault Detection / Alarm Signal Output(optional)



KSQC

600

Control Voltage
D: 10-32VDC

Switching Mode
Blank: Zero Crossing
R: Random-on

D

60

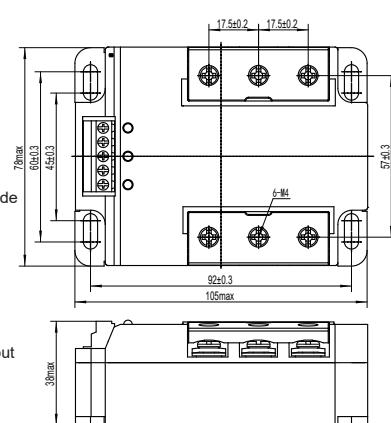
R

-C (XXX)

Load Voltage
480: 180-530VAC
600: 180-660VAC

Load Current
25: 25A
40: 40A
60: 60A
80: 80A

Customized Code
Blank: Without Alarm Signal Output
C: With Alarm Signal Output



KSV Series Single Phase AC Output

Output: AC Current Range: 10A - 75A



KSV 480 D 20 R -L M (XXX)

Load Voltage
240: 24-280VAC
480: 24-530VAC
600: 24-660VAC

D: DC Control

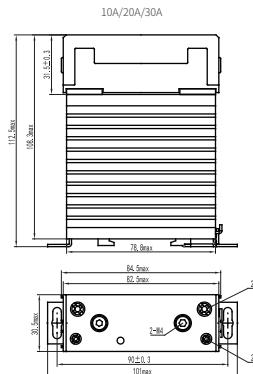
Switching Mode
Blank: Zero Crossing
R: Random-on

Customized Code

Load Current
10: 10A
20: 20A
30: 30A
40: 40A
50: 50A
75: 75A

L: LED

M:MOV
T:TVS
Blank: No protection (Optional)



KST Series Dual pole AC Output

Output: AC Current Range: 20A-30A



KST 480 D 20 R -L M H (XXX)

Load Voltage
240: 24-240VAC
480: 24-530VAC
600: 24-660VAC

D:DC Control

Switching Mode
None:Zero Crossing
R:Random-on

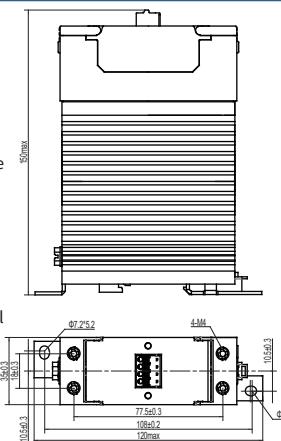
Customized Code

Load Current
20: 20Amp
30: 30Amp

L:LED

M:MOV
T:TVS
Blank: No protection (Optional)

H: Two Channels Single Control
Blank: Two Channels Dual Control



KSG***D Series AC Output

Output: AC Current Range: 2A - 3A



KSG 240 D 2 R -5 D (XXX)

Load Voltage
240: 24-280VAC
380: 24-440VAC

D: DC Control

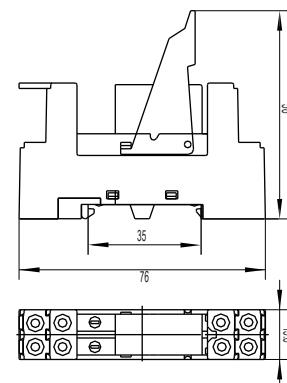
Switching Mode
Blank: Zero Crossing
R: Random-on

D: With Socket

Load Current
2: 2A
3: 3A

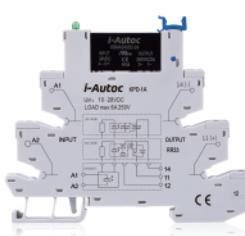
Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

Customized Code



KSMA***D Series Single Phase AC Output

Output: AC Current Range: 1A - 2A



KSM A 240 D 2 R -24 D (XXX)

Load Voltage
240: 24-280VAC

A: AC Output

D: DC Control

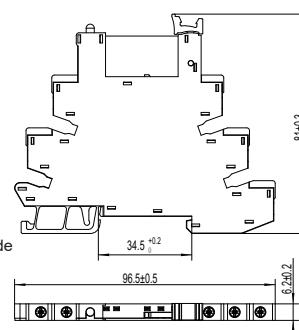
Switching Mode
Blank: Zero Crossing
R: Random-on

Blank: Without PLC Socket
D: With PLC Socket

Load Current
1: 1A
2: 2A

Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

Customized Code



Din-Rail Mount

KSG3R***D Series AC Output

Output: AC Current Range: 2A - 3A



KSG3R 380 D 2 R -5 D (XXX)

Load Voltage
240: 24-280VAC
380: 24-440VAC

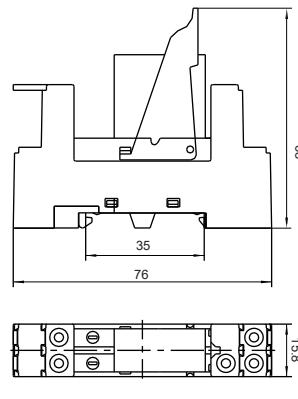
Load Current
2: 2A
3: 3A

Switching Mode
Blank: Zero Crossing
R: Random-on

Blank: Without Socket
D: With Socket

Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

Customized Code
(XXX)



KSGD***D Series DC Output

Output: DC Current Range: 2A - 5A



KSGD 48 D 2 -5 D (XXX)

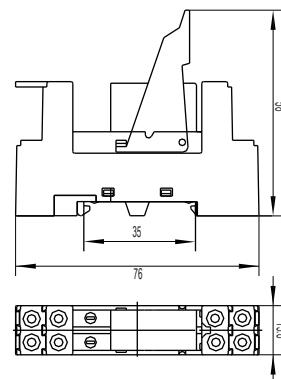
Load Voltage
24: 0-28.8VDC
48: 0-57.6VDC

Load Current
2: 2A
3: 3A
4: 4A
5: 5A

D: DC control

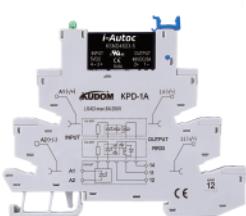
Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC
48: 38.4-57.6VDC
60: 48-72VDC

Customized Code
(XXX)



KSMD***D Series Single Phase DC Output

Output: DC Current Range: 0.1A - 4A



KSM D 48 D 3 -24 D (XXX)

Load Voltage
24: 3-28VDC
48: 48-58VDC

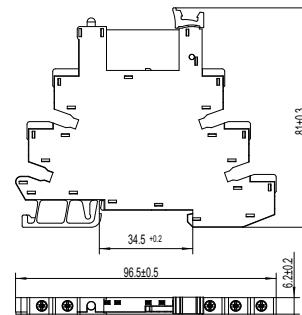
Load Current
0.1: 0.1A
2: 2A
3: 3A
4: 4A

D: DC Output

D: DC Control

Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC
48: 38.4-57.6VDC
60: 48-72VDC

Customized Code
(XXX)



KG3RD***D Series DC Output

Output: DC Current Range: 2A



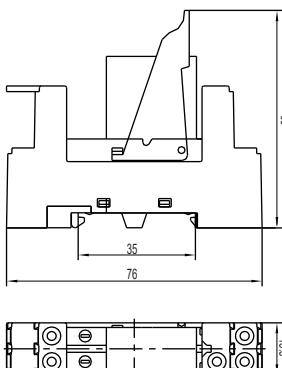
KG3RD 50 D 2 -5 D (XXX)

Load Voltage
50: 3-50VDC
100: 3-100VDC

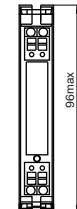
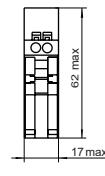
Load Current
2: 2A

Control Voltage
5: 4-6VDC
12: 9.6-14.4VDC
24: 19.2-28.8VDC

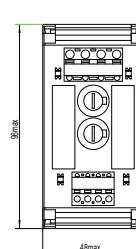
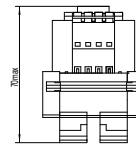
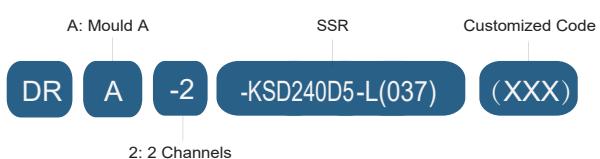
Customized Code
(XXX)



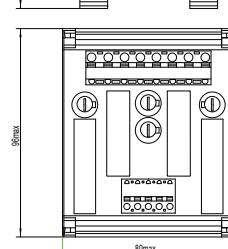
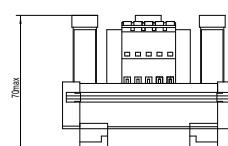
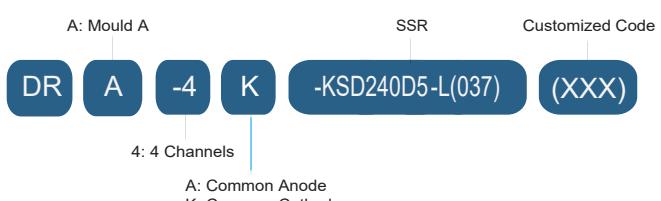
DRA-1-KSD Series 1 Channel AC Output



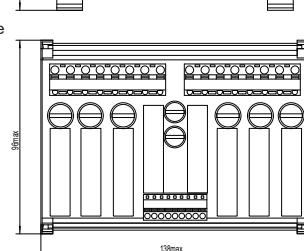
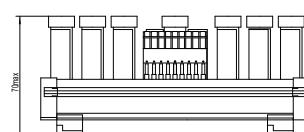
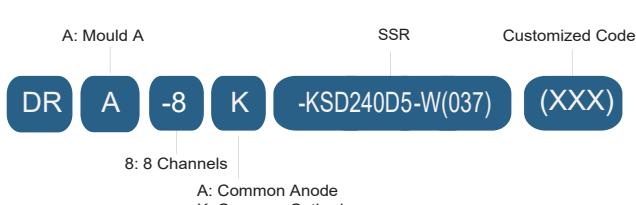
DRA-2-KSD Series 2 Channels AC Output



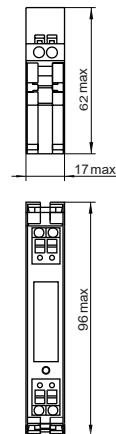
DRA-4-KSD Series 4 Channels AC Output



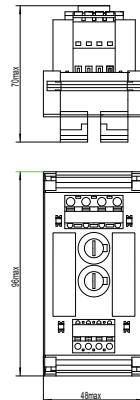
DRA-8-KSD Series 8 Channels AC Output



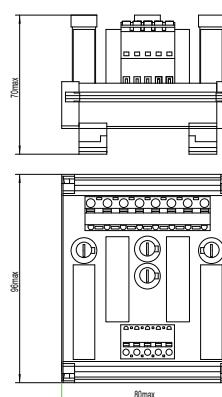
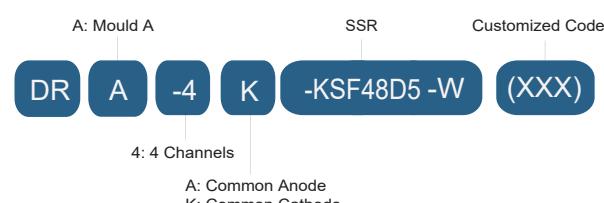
DRA-1-KSF Series 1 Channel DC Output



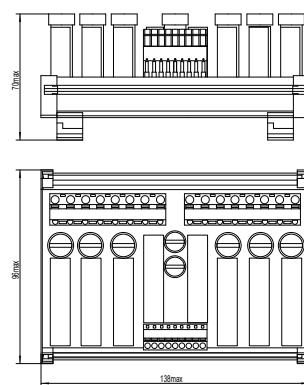
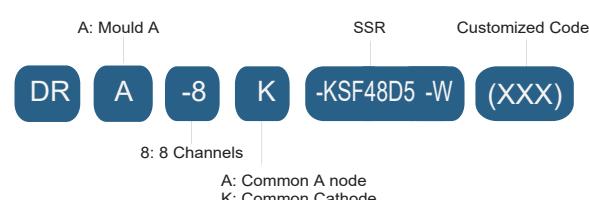
DRA-2-KSF Series 2 Channels DC Output



DRA-4-KSF Series 4 Channels DC Output



DRA-8-KSF Series 8 Channels DC Output



KMB Series Three Phase Motor Reversing Module

Output: AC Current Range: 10A-20A



KMB **380** **D** **10** **-24** **(XXX)**

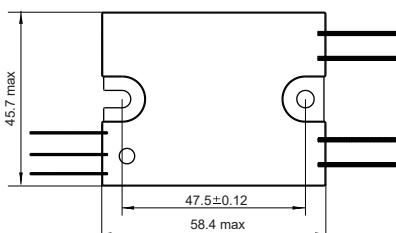
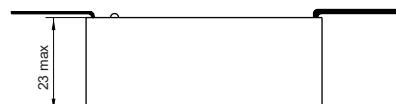
Load Voltage
380: 24~440VAC

D: DC Control

Load Current
10: 10A
20: 20A

Control Voltage
12: 12VDC
24: 24VDC

Customized Code



KMC Series Single Phase Motor Reversing Module

Output: AC Current Range: 10A-40A



KMC **380** **D** **10** **P** **-12** **130** **(XXX)**

Load Voltage
380: 24~440VAC

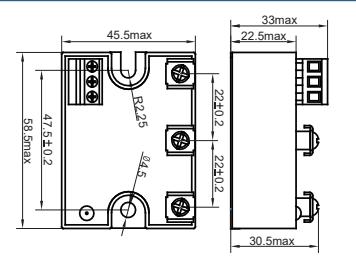
D: DC Control

Control Mode
Blank: Common Anode
P: Common Cathode

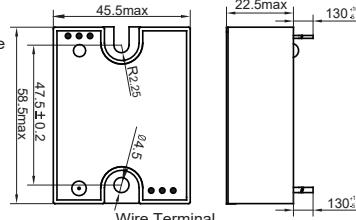
Load Current
10: 10A
20: 20A
40: 40A

Control Voltage
12: 12VDC
24: 24VDC

Customized Code



Screw Terminal



KMS Series Three Phase Motor Reversing Module

Output: AC Current Range: 25A-60A



KMS **380** **D** **25** **P** **-24** **F** **(XXX)**

Load Voltage
380: 24-440VAC
480: 24-530VAC

D: DC Control

Control Mode
Blank: Common Negative
P: Common Positive

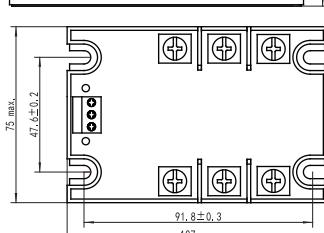
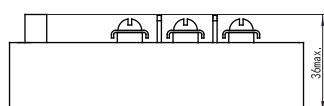
Blank: Two-phase Switch

F: Three-phase Switch

Load Current
25: 25A
40: 40A
60: 60A

Control Voltage
24: 10-32VDC

Customized Code

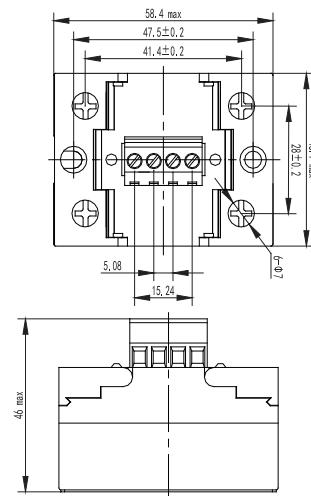


KSJD Single Phase DC to DC Motor Reversing Module

Output: DC Current Range: 10A



Load Voltage
30: 30VDC
KSJD 30 D 10 -24
D: DC Control
Control Voltage
12: 12VDC
24: 24VDC



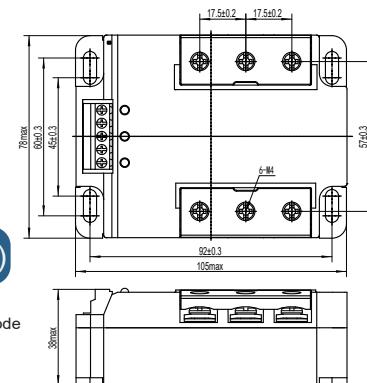
KMTY Series Three Phase Motor Reversing Module

Output: AC Current Range: 25A-80A

Built in Function: Automatic Phase Correction / Phase-loss Protection(optional)



D: DC Control
Switching Mode
Blank: Zero Crossing
R: Random-on
24: 10-32VDC
KMTY 600 D 60 R P -24 F -N (XXX)
Load Voltage
480: 24-530VAC
600: 24-660VAC
Load Current
25: 25A
40: 40A
60: 60A
80: 80A
Control Mode
Blank: Common Cathode
P: Common Anode
Customized Code

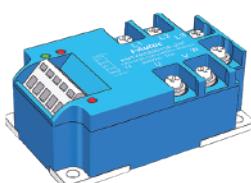


Blank: With Automatic Phase Correction & Phase-loss Correction Function
N: Without Automatic Phase Correction & Phase-loss Correction Function

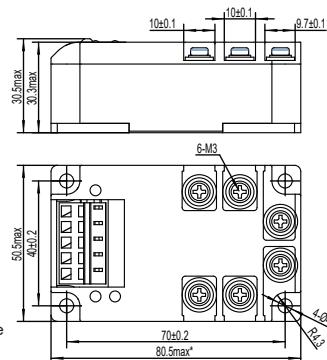
KMTYM Series Mini Three Phase Motor Reversing Module

Output: AC Current Range: 15A-25A

Built in Function: Automatic Phase Correction / Phase-loss Protection(optional)



D: DC Control
Switching Mode
Blank: Zero Crossing
R: Random-on
24: 10-32VDC
KMTYM 380 D 25 R P -24 F -N (XXX)
Load Voltage
380: 24-440VAC
Load Current
15: 15A
25: 25A
Control Mode
Blank: Common Cathode
P: Common Anode
Customized Code



Blank: With Automatic Phase Correction & Phase-loss Correction Function
N: Without Automatic Phase Correction & Phase-loss Correction Function

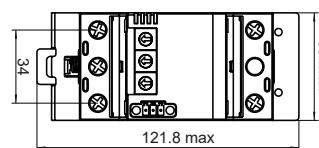
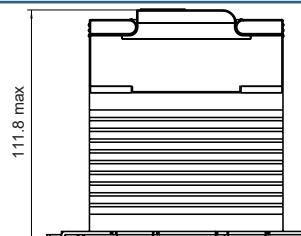


KRB Bus Communication Intellectual Voltage Regulator

Output: AC Current Range: 40A



Load Voltage
 240: 150-280VAC
 380: 300-440VAC
KRB **240** **D** **40** **-C** **(XXX)**
 D: DC Control Current Monitoring Function

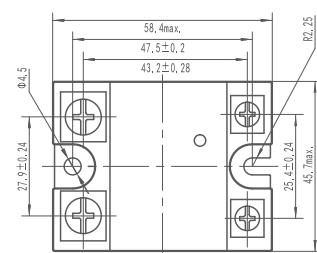
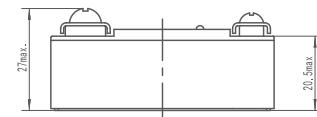


KWR Non-isolated Single Phase Voltage Regulator

Output: AC Current Range: 10A-100A



Regulating Potentiometer
 F: 150K/2W
 G: 220K/2W
 H: 470K/2W
KWR **480** **F** **10** **-L** **(XXX)**
 L: LED
 Load Voltage
 480: 24-530VAC
 Load Current
 10: 10A
 25: 25A
 40: 40A
 60: 60A
 80: 80A
 100: 100A
 Customized Code



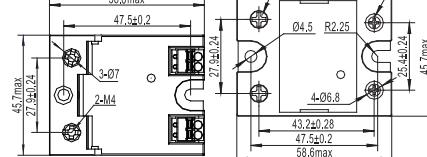
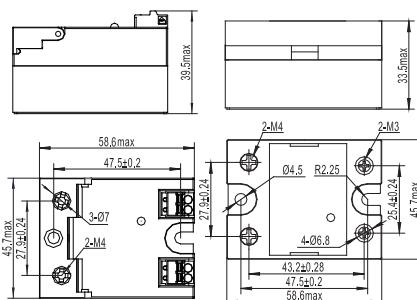
KYR Series Single Phase Voltage Regulator

Output: AC Current Range: 25A-80A

Note: Work with external power supply



Load Voltage
 240: 176-280VAC
 480: 300-530VAC
KYR **P** **480** **L** **25** **P** **M** **(XXX)**
 Load Current
 25: 25A
 40: 40A
 60: 60A
 80: 80A
 M: MOV (Optional)
 P: Power Proportional Output
 Control Voltage
 L: 0-5VDC
 H: 0-10VDC
 I: 4-20mA
 Customized Code

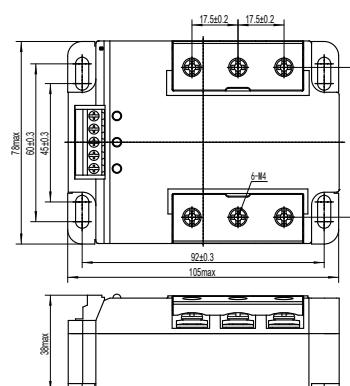


KYRT Series Three Phase Voltage Regulator

Output: AC Current Range: 25A-80A



Load Voltage
 380: 180-440VAC
 480: 180-530VAC
KYRT **V** **480** **L** **80** **-L** **(XXX)**
 Load Current
 25: 25A
 40: 40A
 60: 60A
 80: 80A
 Customized Code
 V: Voltage Proportional Output
 P: Power Proportional Output
 L: LED
 Control Voltage
 L: 0-5VDC/4-20mA
 H: 0-10VDC/4-20mA



BCA Series Temperature Control Module



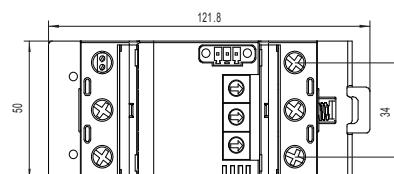
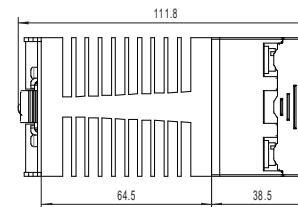
Load Voltage
240: 240VAC
380: 380VAC

Load Current
40: 40Amp

BCA 240 T 40 -S4

Temperature Sensor
T: Thermal Coupler

Control Mode
S4: RS 485



DRC Series Mod-Bus Current Detection Module



Channel
8: 8 Channels

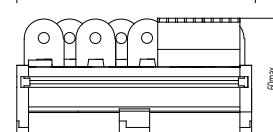
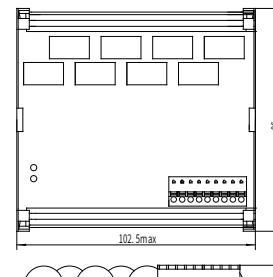
Rated Current
20: 20Amp

Control Mode:
RS 485

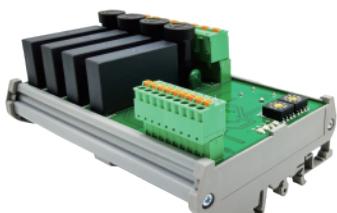
DRC 8 A 20 A S4

Current type
A: AC

Tolerance
A: $\pm 5\%$



DRD Intelligent Module Voltage Regulator



Channel
4: 4 Channels

Load Voltage
220: 220VAC

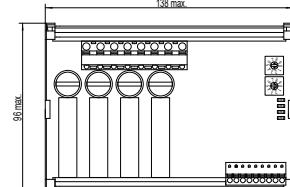
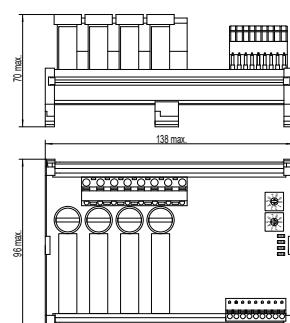
Load Current
5: 5A

DRD 4 D 220 P 5 S4

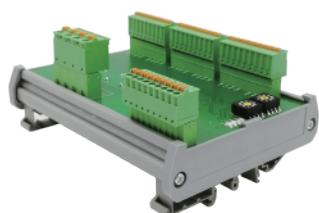
D: DC Control

Output Mode
P: Power
Proportional Output

Control Mode
S4: RS 485



DRF Series Multi-channels Modbus Voltage Regulator



Channel
12: 12 Channels

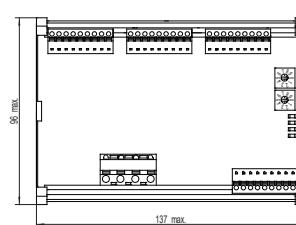
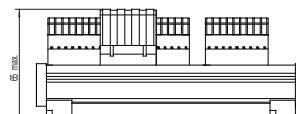
Load Voltage
220: 220VAC

Control Mode
S4: RS 485

DRF 12 S 220 P -S4

Function
S: Steady
Output
Voltage

Output Mode
P: Power Proportional Output



Heatsink

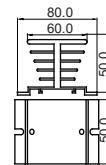
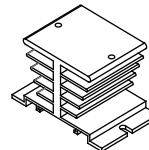


KHS-A50 Heatsink

Weight: 115g

Thermal Resistance: 2.1°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

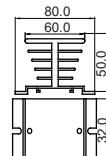
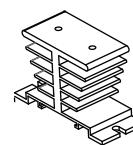


KHS-A32 Heatsink

Weight: 70g

Thermal Resistance: 2.8°C/W

Suitable for KSIM

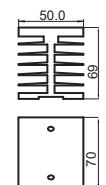
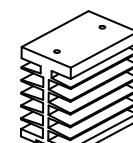


KHS-B70 Heatsink

Weight: 235g

Thermal Resistance: 1.9°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

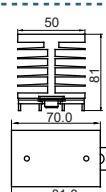
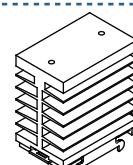


KHS-B70-D Heatsink with DIN Rail

Weight: 290g

Thermal Resistance: 1.9°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

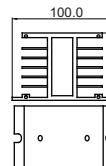
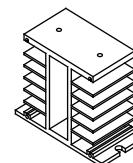


KHS-C49 Heatsink

Weight: 255g

Thermal Resistance: 1.7°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

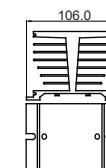
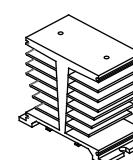


KHS-D50 Heatsink

Weight: 375g

Thermal Resistance: 1.6°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

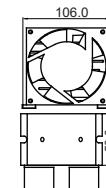
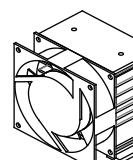


KHS-D50-F Heatsink with Fan

Weight: 645g

Thermal Resistance: 0.6°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR

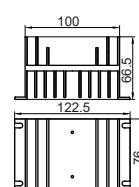
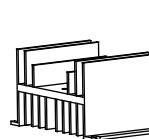


KHS-E76 Heatsink

Weight: 300g

Thermal Resistance: 1.4°C/W

Suitable for KSI, KSID, KSJ, KWR, KSQM, KMB
KMC, KSIA, KYR



Accessory

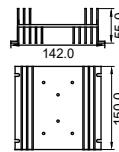
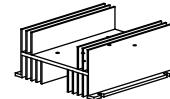


KHS-F150 Heatsink

Weight: 539g

Thermal Resistance: 0.6°C/W

Suitable for KSI, KSID, KSJ, KWR, KYR, KSIA, KSQC, KMS, KMT, KMTY, KMB, KMC, KSQF, KYRT

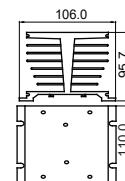
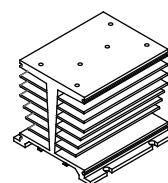


KHS-D110 Heatsink

Weight: 825g

Thermal Resistance: 0.8°C/W

Suitable for KSI, KSID, KSJ, KWR, KYR, KSIA, KSQC, KMS, KMT, KMTY, KMB, KMC, KSQF, KYRT, KMTYM, KRB

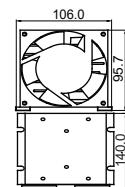
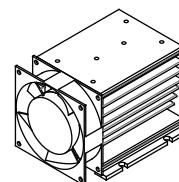


KHS-D110-F Heatsink with Fan

Weight: 1095g

Thermal Resistance: 0.35°C/W

Suitable for KSI, KSID, KSJ, KWR, KYR, KSIA, KSQC, KMS, KMT, KMTY, KMB, KMC, KSQF, KYRT, KMTYM, KRB

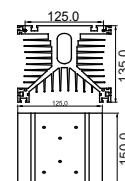
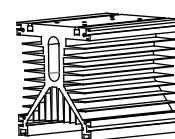


KHS-G150 Heatsink

Weight: 2320g

Thermal Resistance: 0.4°C/W

Suitable for KSI, KSID, KSJ, KWR, KYR, KSIA, KSQC, KMS, KMT, KMTY, KMB, KMC, KSQF, KYRT, KMTYM, KRB

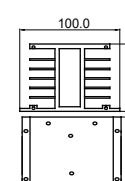
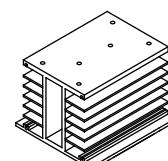


KHS-C110 Heatsink

Weight: 560g

Thermal Resistance: 0.9°C/W

Suitable for KSI, KSID, KSJ, KWR, KYR, KSIA, KSQC, KMS, KMT, KMTY, KMB, KMC, KSQF, KYRT, KMTYM, KRB

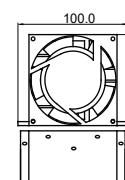
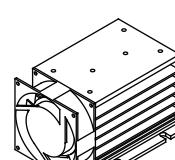


KHS-C110-F Heatsink with Fan

Weight: 830g

Thermal Resistance: 0.4°C/W

Suitable for KSQF, KSQC, KMS, KMT, KMTY

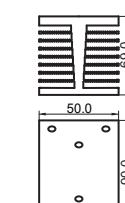
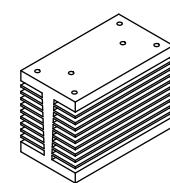


KHS-B90 Heatsink

Weight: 390g

Thermal Resistance: 1.7°C/W

Suitable for KRB



Thermal Pad KTP-0(A)



Thermal Pad KTP-1



Thermal Pad KTP-2



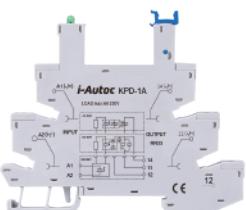
Din-Rail DR-1



Din-Rail DR-3



DIN Rail Socket KPD-1A
for KSMA/KSMD



DIN Rail Socket KPD-3A
for KSG/KSGD



DIN Rail Socket KPD-4A
for KSG3R/KG3RD



1 Phase Protection
Cover KPC-0A



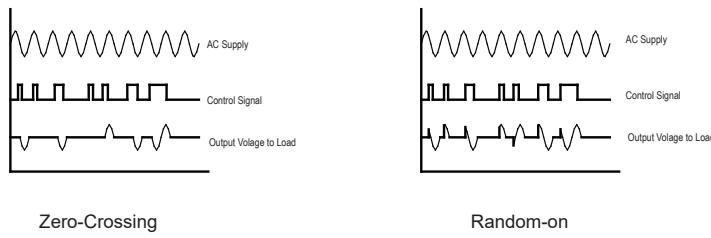
3 Phase Protection
Cover KPC-1A



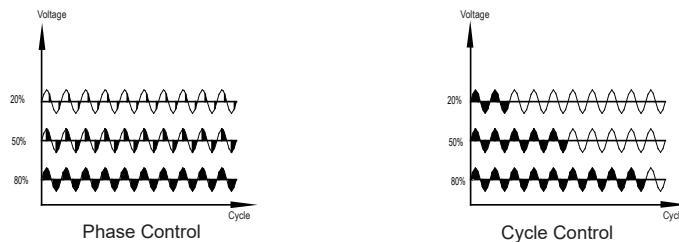
Mini 1 Phase Protection
Cover KPC-2A



1. Typical operation sequence of an AC SSR



2. Typical operation sequence of an AC voltage regulator



3. What types of loads are used for Zero Cross and Random turn-on SSR?

For AC output SSR, there are two switching ways zero-crossing and random-on. Except for some special application (for example, phase angel control must apply random-on), zero-crossing SSR is recommended for, resistive, capacitive, lamp and slightly inductive loads. Random-on relays are used for highly inductive loads, or when you need to phase angle fire a load. If a SSR is applied to a special application, please contact KUDOM for technical support.

4. How to calculate the rating current of a resistive load?

Single-phase: $I = P/220$ or $I = P/380$

Three-phase: $I = P\sqrt{3}/380$

Considering the ambient temperature, heat emission and other conditions, it is prudent to include 40-80% safety margin for load current, when selecting a SSR for resistive load.

5. How to calculate the steady-state current of a motor load?

Single-phase motor: $I = P/220 / 0.85$

Three-phase motor: $I = P/\sqrt{3} / 380 / 0.85$

When the motor turns on, the surge current could be 5-7 times of steady-state current for several seconds.

6. How to choose an appropriate MOV for an application using a SSR?

SSR is used for various applications, overvoltage may occur during its operation. We can use MOV to suppress the transient voltage on power components, reducing the damage to SSR. To choose an appropriate MOV, first you must determine circuit conditions such as peak voltage and current during the event. You also must determine the number of surges the MOV must survive as well as the acceptable let-through voltage for the application. The transient overvoltage endurance of a 380 series AC SSR is 800V, it can operate a 220VAC load, or lower, without MOV. The transient overvoltage endurance of a 480 series AC SSR is 1200V, it can operate a 380VAC load, or lower, without MOV.

7. Over-current and short-circuit protection

There is no over-current protection designed in KUDOM regular SSR. We suggest that, a thermal relay can be series to the load for over-current protection, and a semi-conductor style fuse be placed in series with the load circuit to help protect the SSR from short circuit

8. How to protect a DC SSR controlling an inductive load?

To protect a DC SSR from the electromagnetic field (EMF) when the inductive load is turned off, you need to place a diode in reverse parallel across the load.

9. Why do I see leakage current from the SSR when the relay is not on?

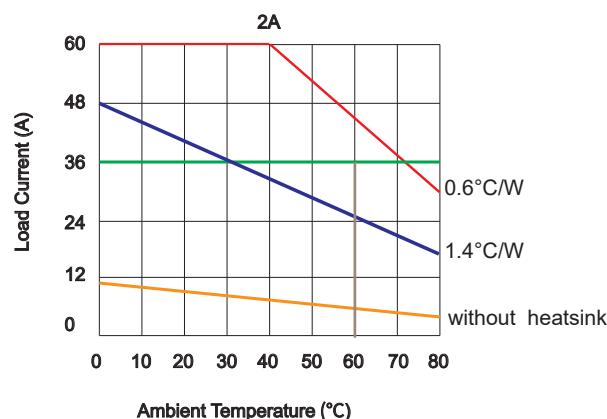
During the SSR is turned-off, we can observe an extremely small current when apply a voltage to SSR output, due to the power component has an impedance. Besides, the leakage current is caused by the snubber network which is a resistor and capacitor in series placed in parallel across the output of the SSR. This snubber protects the relay from static and commutating dv/dt.

10. Why do I need to use a heat sink with a SSR?

When a SSR is on, the relay will generate heat due to the forward voltage drop across the output. The amount of power generated is a function of the load current. The maximum chip temperature for a SCR is 125°C, if the SCR exceeds this temperature it can go into thermal run away. This will cause you to lose the ability to turn the relay off. The heat sink takes the heat generated by the SSR and dissipate it keeping the SSR cooler.

11. Selection of heat sink

To select the proper sized heat sink, you need to know 2 things: the load current and the maximum ambient temperature the relay will be exposed to. Once you know these parameters and have selected the proper SSR, you can now use the thermal derating curves included in the data sheet of the particular model you have selected. For example: SSR # KSI240D60-L, if you want to use it load current at 36A, ambient temperature at 60°C, with this example we go to the data sheet and find 60 A thermal curve. On the left side we find 36A and draw a line straight across to the right then we find the ambient temperature of 60°C on the bottom and draw a line straight up until it intersects with the previous line. At this point we can see that the point falls between the 1.4°C/W and the 0.6°C/W line. You always pick the rating above your point since the heat sink rating below would not keep the relay cool enough. So therefore we need a 0.6°C/W sized heat sink.





Xiamen Kudom Electronics Technology Co.,Ltd
Add:No.52,Hongtangtou 1st Road,Xike Town,Tongan District,Xiamen
Tel.:+86-592-7156029
Fax:+86-592-7156038
sales@i-autoc.com
www.i-autoc.com

Technical support
+86 180 5926 3013 (SSR, Voltage Regulator, Motor Reversing)
+86 180 5926 9771 (Intelligent Module)
US techncial support line: +1 440-479-9905

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