SOLID STATE RELAY & SCR CATALOG

Single-phase and three-phase switching, regulation and thermal management



STANDARD 1-PHASE SSR



1-PHASE INTEGRATED COVER



STANDARD 3-PHASE SSR



3-PHASE INTEGRATED COVER



DIN RAIL 1-PHASE SSR



3-PHASE SCR REGULATOR

POWER SWITCHING MADE PRACTICAL

SSR & SCR portfolio

A focused range for industrial heating, automation and control panels

Choose by phase, control signal, load voltage, rated current and thermal design.
The page references below lead directly to the corresponding product-family section.

01 **Standard SSR - White** P.04
Standard single-phase SSR | white housing

02 **Standard SSR - Black** P.05
Standard single-phase SSR | black housing

03 **BSSR Series** P.06
Single-phase SSR | integrated protective cover

04 **SSR3 Series** P.07
Standard three-phase SSR | black housing

05 **BSSR3 Series** P.08
Three-phase SSR | integrated protective cover

06 **TSR FOTEK Type** P.09
3-phase FOTEK-style housing | DA / AA | 10-100A

07 **BSSRD DIN Rail SSR** P.10
DIN rail single-phase SSR | integrated heatsink

08 **SSR-DV / M1DK Series** P.11
Pulse-triggered SCR | 25-100A

09 **SCR3L Series** P.12
3-phase SCR voltage regulator | 60 / 100 / 200A

10 **BSTY Series** P.13
3-phase voltage regulation module | 150-450A

11 **SSR Heatsinks** P.14
Thermal accessories | five size classes

Product appearance and final specifications are subject to the approved quotation and datasheet.

CHOOSE BY SIGNAL, LOAD AND PHASE

Quick selection matrix

Shortlist the family first; confirm the exact model and thermal design before ordering

Family	Input / control	Load output	Current	Best fit
Standard SSR White	**DC / AC / 4-20mA / pot.**	**AC or DC load**	**10-100A**	**Separate plastic cover**
Standard SSR Black	**DC / AC / analog / pot.**	**AC or DC load**	**10-120A**	**Separate plastic cover**
BSSR Series	**DC / AC / analog / pot.**	**AC or DC load**	**10-120A**	**Integrated protective cover**
SSR3 Series	**3-32VDC / 70-280VAC**	**24-480VAC, 3-phase**	**10-200A**	**Standard black-housing SSR**
BSSR3 Series	**4-32VDC / 70-280VAC**	**24-480VAC, 3-phase**	**10-120A**	**Integrated protective cover**
TSR FOTEK Type	4-32VDC / 80-250VAC	24-380VAC, 3-phase	10-100A	DA / AA FOTEK-style housing
DIN Rail SSR	DA / AA / DD	AC or DC load	10-120A	Compact cabinets
SSR-DV	Pulse, G / T1	24-250VAC	25-100A	With ZKG / ZKC / ZKD
SCR3L Series	4-20mA / 0-10V / pot	380VAC, 3-phase	60-200A	3-phase resistive heating
BSTY Series	1-5V / 2-10V / 4-20mA	380VAC, 3-phase	150-450A	High-current heat control

SELECTION CHECKS

1 Control signal

DC, AC, analog or pulse?

2 Load type

Resistive, inductive or DC?

3 Power system

Single phase or three phase?

4 Thermal design

Current, duty, ambient, airflow?

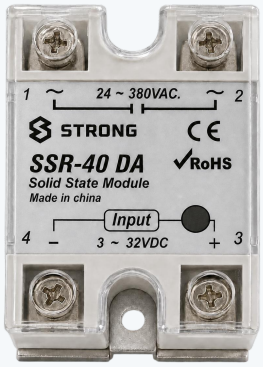
Selection principle

Nominal current alone is not sufficient. Verify load type, switching pattern, enclosure temperature, cooling and fuse protection.

STANDARD SSR | WHITE HOUSING

Standard SSR - White Housing

DA / DA-H / AA / AA-H / VA / VA-H / DD / LA



MODEL CODE SSR-[CURRENT][TYPE]

DA	3-32VDC control / AC load
AA	80-250VAC control / AC load
VA	Potentiometer control / AC load
DD	3-32VDC control / DC load
LA	4-20mA proportional / AC load
-H	High-voltage AC load version

TECHNICAL SPECIFICATIONS

Variant	Load current	Load voltage	Control / input	Control current	On-state	Time / ratio
DA	10/25/30/40/50/60/75/80/100A	24-380VAC	3-32VDC	DC 3-25mA	<=1.5V	<=10ms
DA-H	10/25/40/50/60/75/80/100A	90-480VAC	3-32VDC	DC 3-25mA	<=1.5V	<=10ms
AA	10/25/40/50/60/75/80/100A	24-380VAC	80-250VAC	AC <=12mA	<=1.5V	<=10ms
AA-H	10/25/40/50/60/75/80/100A	90-480VAC	80-250VAC	AC <=12mA	<=1.5V	<=10ms
VA	10/25/30/40/50/60/75/80/100A	24-380VAC	Pot. 470kOhm/2W	-	<=1.5V	-
VA-H	10/25/40/50/60/75/80/100A	90-480VAC	Pot. 470-500kOhm/2W	-	<=1.5V	-
DD	10/25/40/50/60/75/80/100A	5-200VDC	3-32VDC	DC 5-25mA	<=2.3V	<=10ms
LA	10/25/40/60/80/100A	0-250VAC	4-20mA	Analog input	<=5.6V	7-95%

TECHNICAL NOTES

Switching variants: leakage <=2mA | dielectric 2500VAC | insulation 1000MOhm / 500VDC

Switching variants: ambient -30 to +75 deg C | screw mount | weight 132g

LA: leakage <=8mA rms | dielectric 4000Vrms | insulation >=100MOhm / 500VDC

LA: ambient -20 to +75 deg C | peak voltage 600VAC | CE | screw mount

Plastic terminal protective cover is configured separately; confirm it on the quotation.

SSR-LA PRODUCT PAGE https://strong-ele.com/ssr-la-analog-controlled-solid-state-relay.html

STANDARD SSR PAGE https://strong-ele.com/ssr-da-solid-state-relay.html

STANDARD SSR | BLACK HOUSING

Standard SSR - Black Housing

DA / AA / DD / VD / LA / VA



MODEL CODE SSR-[CURRENT][TYPE]

DA	3-32VDC control / AC load
AA	70-280VAC control / AC load
DD	3-32VDC control / DC load
VD	0-10VDC proportional / AC load
LA	4-20mA proportional / AC load
VA	Potentiometer control / AC load

TECHNICAL SPECIFICATIONS

Variant	Load current	Load voltage	Control / input	Control current	On-state	Timing
DA	10/25/40/50/60/75/80/100/120A	24-480VAC	3-32VDC	DC 3-25mA	<=1.5V	<=10ms
AA	10/25/40/50/60/75/80/100/120A	24-480VAC	70-280VAC	AC <=12mA	<=1.5V	<=10ms
DD	10/25/40/50/60/75/80/100/120A	5-220VDC	3-32VDC	DC 5-25mA	<=2.3V	<=10ms
VD	10/25/40/50/60/75/80/100/120A	0-250VAC	0-10VDC	DC 3-25mA	<=1.5V	-
LA	10/25/40/50/60/75/80/100/120A	0-250VAC	4-20mA	AC <=12mA	<=1.5V	-
VA	10/25/40/50/60/75/80/100/120A	220VAC	Pot. 470-560kOhm/2W	-	<=1.5V	-

COMMON SPECIFICATIONS

Off leakage <=2mA | Dielectric strength 2500VAC | Ambient -30 to +75 deg C | Screw mount

Insulation: DA / AA / DD / VA 1000MOhm / 500VDC; VD / LA 1000MOhm

LED: DA / AA / DD. No work indicator listed: VD / LA / VA.

Weight: DA / AA / DD / VA 90g (10A, 25A), 135g (40A+); VD / LA 80g

VA dielectric: 2500VAC between input, output and cooling plate.

Plastic terminal protective cover is configured separately; confirm it on the quotation.

WEBSITE PRODUCT PAGE https://strong-ele.com/SSR-DA-Series-Single-Phase-Solid-State-Relay-SSR-PG10705444

SSR WITH INTEGRATED PROTECTIVE COVER

BSSR Series

BSSR-[CURRENT]DA / AA / VA / DD / VD / LA



MODEL CODE BSSR-[CURRENT][TYPE]

DA	3-32VDC control / AC load
AA	70-280VAC control / AC load
VA	Potentiometer control / AC load
DD	3-32VDC control / DC load
VD	0-10VDC proportional / AC load
LA	4-20mA proportional / AC load

TECHNICAL SPECIFICATIONS

Variant	Load current	Load voltage	Control / input	Control current	On-state	Timing
DA	10/25/40/50/60/75/80/100/120A	24-480VAC	3-32VDC	DC 3-25mA	<=1.5V	<=10ms
AA	10/25/40/50/60/75/80/100/120A	24-480VAC	70-280VAC	AC <=12mA	<=1.5V	<=10ms
VA	10/25/40/50/60/75/85/100/120A	220VAC	Pot. 330-560kOhm/2W	-	<=1.5V	-
DD	10/25/40/50/60/80/90/100/120A	5-220VDC	3-32VDC	DC 5-25mA	<=1.5V	<=10ms
VD	10/25/40/50/60/75/80/100/120A	0-250VAC	0-10VDC	DC 3-25mA	<=1.5V	-
LA	10/25/40/50/60/75/80/100/120A	0-250VAC	4-20mA	AC <=12mA	<=1.5V	-

COMMON SPECIFICATIONS

Off leakage <=2mA | Insulation resistance 1000MOhm | Ambient -30 to +75 deg C

Dielectric strength 2500VAC | Screw mounting | Weight 80g

LED: DA / AA / DD. No work indicator listed: VA / VD / LA.

VA dielectric: 2500VAC between input, output and cooling plate.

Integrated terminal protective cover supplied; no separate plastic cover is required.

WEBSITE PRODUCT PAGE https://strong-ele.com/bssr-da-solid-state-relay.html

STANDARD THREE-PHASE SSR | BLACK HOUSING

SSR3 Standard Three-Phase SSR

Standard black housing | BSSR3-[CURRENT]DA / BSSR3-[CURRENT]AA



MODEL CODE BSSR3-[CURRENT][TYPE]

DA	3-32VDC control / three-phase AC load
AA	70-280VAC control / three-phase AC load
LOAD	24-480VAC output family
RANGE	10A to 200A, depending on variant
BUILD	Screw mounting with LED indicator

TECHNICAL SPECIFICATIONS

Item	BSSR3-[CURRENT]DA	BSSR3-[CURRENT]AA
Load current	10/25/40/50/60/75/80/100/120/200A	10/25/40/50/60/75/80/100/120A
Load voltage	24-480VAC	24-480VAC
Control voltage	3-32VDC	70-280VAC
Control current	10-68mA	AC <=12mA
On-state voltage	<=1.8V	<=1.8V
Off leakage current	<=10mA	<=10mA
On-off time	<=10ms	<=10ms
Dielectric strength	2500VAC	2500VAC
Insulation resistance	1000MOhm / 500VAC	1000MOhm / 500VAC
Ambient temperature	-30 to +75 deg C	-30 to +75 deg C
Mounting method	Screw	Screw
Work indicator	LED	LED
Weight	340g	340g

SELECTION AND THERMAL NOTE

DA supports the 200A option; the listed AA family extends to 120A.

Confirm heatsink, protective fuse, load type, duty cycle and current margin before ordering.

Final model marking and three-phase connection must match the approved quotation and datasheet.

WEBSITE PRODUCT PAGE https://strong-ele.com/ssr-3-three-phase-solid-state-relay-bssr3.html

THREE-PHASE SSR WITH INTEGRATED PROTECTIVE COVER

BSSR3 Series

Original BSSR-3 model family | DA / AA control options



MODEL FAMILY BSSR-3 SERIES

DA	4-32VDC control / three-phase AC load
AA	70-280VAC control / three-phase AC load
LOAD	24-480VAC output family
RANGE	10A to 120A
COVER	Integrated terminal protective cover

TECHNICAL SPECIFICATIONS

Item	BSSR-3 DA	BSSR-3 AA
Load current	10/25/40/50/60/75/80/100/120A	10/25/40/50/60/75/80/100/120A
Load voltage	24-480VAC	24-480VAC
Control voltage	4-32VDC	70-280VAC
Control current	10-68mA	10-68mA
On-state voltage	<=1.5V	<=1.5V
Off leakage current	<=2mA	<=2mA
On-off time	<=10ms	<=10ms
Dielectric strength	2500VAC	2500VAC
Insulation resistance	1000MOhm	1000MOhm
Ambient temperature	-30 to +75 deg C	-30 to +75 deg C
Mounting method	Screw	Screw
Work indicator	LED	LED
Weight	275g	275g

SELECTION AND THERMAL NOTE

Integrated terminal protective cover supplied; no separate plastic cover is required.

Keep the BSSR-3 ordering code; confirm DA or AA control and published load guidance.

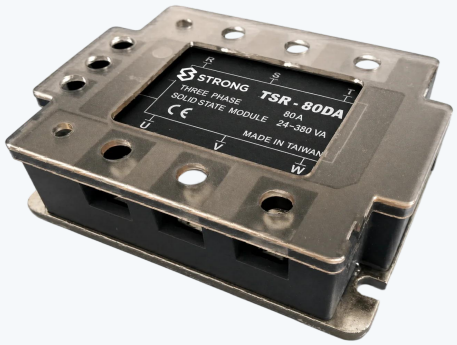
Confirm heatsink, fuse, airflow, duty cycle and actual three-phase connection before ordering.

WEBSITE PRODUCT PAGE https://strong-ele.com/bssr-3-three-phase-solid-state-relay.html

FOTEK-TYPE THREE-PHASE HOUSING

TSR FOTEK-Type Three-Phase SSR

TSR-[CURRENT]DA / TSR-[CURRENT]AA



MODEL CODE TSR-[CURRENT][TYPE]

DA	4-32VDC control / three-phase AC load
AA	80-250VAC control / three-phase AC load
LOAD	24-380VAC output family
RANGE	10A to 100A
BUILD	FOTEK-type housing, screw mount, LED

TECHNICAL SPECIFICATIONS

Item	TSR-[CURRENT]DA	TSR-[CURRENT]AA
Load current	10/25/40/50/60/75/80/100A	10/25/40/50/60/75/80/100A
Load voltage	24-380VAC	24-380VAC
Control voltage	4-32VDC	80-250VAC
Control current	10-68mA	AC <=12mA
On-state voltage	<=1.8V	<=1.8V
Off leakage current	<=10mA	<=10mA
On-off time	<=10ms	<=10ms
Dielectric strength	2500VAC	2500VAC
Insulation resistance	1000MOhm / 500VAC	1000MOhm / 500VAC
Ambient temperature	-30 to +75 deg C	-30 to +75 deg C
Mounting method	Screw	Screw
Work indicator	LED	LED
Weight	450g	450g

BRAND AND CONFIGURATION NOTE

FOTEK-type appearance is shown as the product-configuration reference for this TSR family.

Confirm final brand marking, model code, terminal layout and packaging on the quotation.

Select the heatsink, fuse and current margin for the actual load, duty cycle and ambient.

PRODUCT CONFIGURATION REFERENCE TSR DA / AA | FOTEK-type three-phase housing

COMPACT INSTALLATION

DIN rail solid state relay

Integrated heatsink for space-efficient panel construction

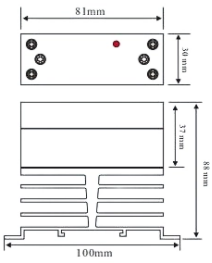


+ DA: DC control, AC load
+ AA: AC control, AC load
+ DD: DC control, DC load
+ DIN rail or screw-fastened installation
+ Integrated aluminum heatsink

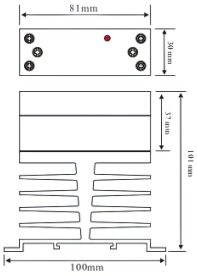
TYPE COMPARISON

Parameter	DA Type (DC Control, AC Load)	AA Type (AC Control, AC Load)	DD Type (DC Control, DC Load)
Rated Load Current (A)	10, 25, 40, 60, 80, 100, 120	10, 25, 40, 60, 80, 100, 120	10, 25, 40, 60, 80, 100
Rated Load Voltage (VAC/VDC)	24-480VAC	24-480VAC	5-220VDC
Control Voltage Range	3-32VDC	70-280VAC	3-32VDC
Control Current Range (mA)	3-25	3-25	3-25
Maximum On-state Voltage Drop (V)	≤1.5	≤1.5	≤1.5
Maximum Off-state Leakage Current (mA)	≤2	≤2	≤2
Switching Time (ms)	≤10	≤10	≤10
Dielectric Strength (VAC)	2500	2500	2500
Insulation Resistance (MΩ)	≥1000	≥1000	≥1000
Ambient Operating Temperature (°C)	-30 to +75	-30 to +75	-30 to +75
Mounting Method	DIN rail, screw-fastened	DIN rail, screw-fastened	DIN rail, screw-fastened
Weight (g)	179/257/267 (per current rating)	Same as DA type	Same as DA type

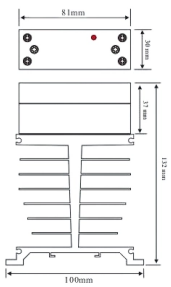
DIMENSION REFERENCES



100L×30W×88H
（10A, 25A, 40A）



100L×30W×101H
（60A, 80A）



100L×30W×132H
（100A, 120A）

VIEW PRODUCT

CONTROLLER-DRIVEN POWER MODULE

SSR-DV / M1DK Series

G/T1 pulse-trigger input for single-phase resistive heating loads



+ 25A / 40A / 60A / 80A / 100A
+ 24-250VAC load range
+ G / T1 pulse trigger
+ Compatible with ZKG / ZKC / ZKD
+ Bolt installation

TECHNICAL SPECIFICATIONS

Item	Specification
Product Series	SSR-DV / M1DK Series
Product Type	Pulse Triggered SCR Module
Available Models	SSR-25DV, SSR-40DV, SSR-60DV, SSR-80DV, SSR-100DV
Equivalent Model	M1DK Series
Load Voltage	24-250VAC / 250VAC
Rated Current	25A / 40A / 60A / 80A / 100A
Control Method	Pulse Signal Trigger
Trigger Terminals	G / T1
Compatible Controllers	ZKG, ZKC, ZKD SCR Controllers
Installation Method	Bolt Installation
Application Load	Single-phase resistive load
Typical Applications	Heating control, ovens, packaging machines, molding machines

Compatibility

Use only with a compatible pulse-output SCR controller and the correct trigger-terminal wiring. Request the wiring diagram for the selected model.

VIEW PRODUCT

INTEGRATED THREE-PHASE REGULATION

SCR3L Series

Intelligent phase control for 380VAC three-phase resistive loads



+ 60A / 100A / 200A
+ 4-20mA / 0-10V / 1-5V
+ 10K potentiometer option
+ 50Hz / 60Hz
+ Integrated fan-cooled structure

TECHNICAL SPECIFICATIONS

Item	Specification
Product Series	SCR3L Series
Product Type	Three-Phase Intelligent SCR Voltage Regulator
Rated Voltage	3-Phase 380VAC, four-wire
Rated Current	60A / 100A / 200A
Frequency	50Hz / 60Hz
Output Voltage Asymmetry	≤5%
Built-in Power Supply	AC220V, connect to N
Optional External Power	DC12V ≥1A
Control Signal	4-20mA, 0-10VDC, 1-5V, 10KΩ / 2W potentiometer
Mounting Size	92mm width, 147.6mm height
Mounting Hole	Ø5.3mm
Application Load	Three-phase resistive load

MODEL-CODE REFERENCE

SCR 3 L - □A

Code	Meaning
SCR	SCR power regulator
3	Three-phase
L	Intelligent type
□A	Rated current

Available models:

Model	Rated Current
SCR3L-60A	60A
SCR3L-100A	100A
SCR3L-200A	200A

Power connection

Rated for 3-phase 380VAC four-wire systems. The built-in AC220V supply is connected to neutral; request the latest wiring diagram.

VIEW PRODUCT

HIGH-CURRENT THREE-PHASE CONTROL

BSTY Series

Phase-angle regulation for 380VAC industrial heating systems

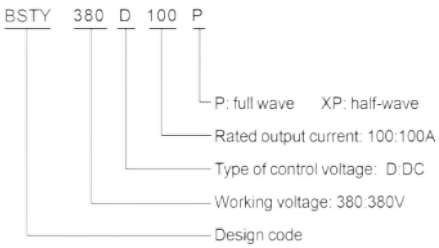


- 150A to 450A model family
- 1-5V / 2-10V / 4-20mA
- 10K potentiometer input
- 0-15s adjustable soft start
- 85C over-temperature cut-off

TECHNICAL SPECIFICATIONS

Item	Specification
Product Series	BSTY Series
Product Type	Three-Phase SCR AC Voltage Regulator
Working Voltage	3-Phase 380VAC ±5%
Rated Current	150A / 200A / 300A / 350A / 400A / 450A
Control Method	Phase-Angle Regulation, 0-180°
Manual Control	10KΩ / 2W Potentiometer
Analog Input	1-5V, 2-10V, 4-20mA
Soft Start Time	2s default, adjustable 0-15s
Protection	Over-temperature protection, 85°C cut-off
Insulation	Fully isolated control and power circuits
Phase Sequence	No restriction
Mounting	Bolt Installation
Application Load	Three-phase resistive load

ORDERING-CODE REFERENCE



System requirement

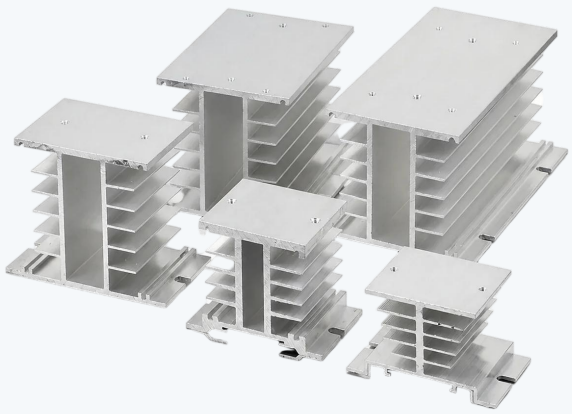
Designed for three-phase resistive loads. Confirm cable, protection, enclosure ventilation and available mounting space.

VIEW PRODUCT

PROTECT SWITCHING PERFORMANCE

SSR aluminum heatsinks

Thermal accessories for panel-mounted single-phase and three-phase SSRs



- Aluminum-alloy construction
- Single-phase / three-phase SSR compatibility
- Panel or screw mounting
- For 10A to 120A SSR families
- Five weight / size classes

TECHNICAL SPECIFICATIONS

Item	Specification
Product name	SSR heatsink / solid state relay heat sink
Material	Aluminum alloy
Compatible relay	Single-phase / three-phase solid state relay
Applicable current	10A / 25A / 40A / 60A / 80A / 100A / 120A
Size options	85g / 150g / 220g / 300g / 680g optional
Function	Heat dissipation for SSR modules
Installation	Panel mounting / screw mounting
Application	SSR modules, control cabinets, heating equipment

Thermal interface and size confirmation

Apply thermal compound evenly and tighten mounting screws uniformly.
Confirm load current, duty cycle, ambient temperature, airflow and dimensions before ordering.

WEBSITE PRODUCT PAGE https://strong-ele.com/ssr-heatsink-for-solid-state-relay.html

RELIABILITY STARTS WITH SYSTEM DESIGN

Installation & protection

Practical checks for SSR and SCR power-control applications

01 **Current margin**

Do not select only by nameplate current. Evaluate continuous RMS current, start-up/inrush, duty cycle and load type.

02 **Heat dissipation**

Use the matched heatsink, thermal compound and adequate cabinet airflow. Keep the base-to-heatsink interface flat and clean.

03 **Circuit protection**

Install an appropriately selected fast-acting semiconductor fuse and upstream circuit protection. Verify short-circuit coordination.

04 **Load compatibility**

Confirm whether the product is intended for resistive, inductive or DC loads. For BSSR-3, the published guide is 60% resistive / 40% inductive.

05 **Wiring & isolation**

Separate control wiring from power conductors, tighten terminals correctly and verify dielectric and grounding requirements.

06 **Ambient conditions**

Check enclosure temperature, ventilation, humidity and contamination. Derating may be required in hot or enclosed installations.

Recommended power path

CONTROL
PID / PLC
>
SWITCH
SSR / SCR
>
PROTECT
Fast fuse
>
LOAD
Heater / process

FROM COMPONENT TO EQUIPMENT

Applications & order checklist

Common use cases and the information needed for accurate model selection

Industrial heating

Ovens, dryers, heaters, sealing and heat-treatment equipment

Plastic machinery

Injection molding, extrusion, blow molding and hot-runner systems

Packaging equipment

Heat sealing, tunnel machines and temperature-controlled processes

Automation panels

PID controllers, PLC outputs, timers and power-switching assemblies

Fans & pumps

Only with a product and protection scheme confirmed for the actual load

HVAC systems

Heating, ventilation and compressor-support control circuits

Send these details with your inquiry

1. Power system: AC/DC, voltage and phase
2. Load type and rated power/current
3. Control signal from controller or PLC
4. Switching frequency / duty cycle
5. Ambient temperature and enclosure airflow
6. Mounting: panel, screw or DIN rail
7. Required alarms, communication or soft start
8. Target quantity, branding and packaging

CONTROL POWER WITH CONFIDENCE

Industrial temperature and power control components engineered as one coordinated product chain. Mixed-model orders, OEM/private-label production and worldwide export support available.

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Specifications, appearance and availability are subject to confirmation. Product images are for identification and selection support.

Request the latest datasheet, wiring diagram, dimensional drawing and model-code confirmation before final ordering.