

SSR Power Controller	SSR 1	SSR 2	SSR 3
Phase	Single	2 Leg Switching	3 Phase
DIN Rail/Panel Mounting	Both	Both	Both
Cooling Fan	Optional	Optional	Optional
Control Method	Zero Cross Trigger / high isolation > 50 meg ohms/500DC / Phase Control		
Amps	5-100	5-100	25-100
Inputs	3-32 VDC 15-60 VAC 80-250VAC 4-20mA	3-32 VDC 15-60 VAC 80-250VAC 4-20mA	4-32 VDC 80-250 VAC 4-20mA
Operating Voltage	5-60 VDC 24-380 VAC 90-480 VAC 24-600 VAC	5-60 VDC 24-380 VAC 90-480 VAC 24-600 VAC	24-380 VAC 90-480 VAC 24-600 VAC
Touch Safe	Optional	Optional	Standard
Status Indicator	RED LED Indicator		
Ambient Temperature	- 20°C to 80°C		
Agency Approvals	cUL, UL, CE		
Dielectric Strength	Over 2.5KVAC/1 Minut		
Isolation Strength	Over 50 Ω / 500 VDC		

IHPR Series	ITSR Series	ISSR Series
45mm W x 62mm L x 31mm H	78mm W x 100mmL x 30mm H	45mm W x 60mm L x 22.5mm H

Single Phase Solid State Relays			Description			
Part Number	Input Voltage	Amps	Operating Voltage	Certification	Price	
ISSR-05DD	3-32 VDC	5 Amp	5-60 VDC	cURus, CE	\$23.28	
ISSR-10DA	3-32 VDC	10 Amp	24-380 VAC	cURus, CE	\$20.43	
ISSR-25DA	3-32 VDC	25 Amp	24-380 VAC	cURus, CE	\$23.28	
ISSR-25DA-H	3-32 VDC	25 Amp	90-480 VAC	cURus, CE	\$28.98	

ISSR-40DA-H	3-32 VDC	40 Amp	90-480 VAC	cURus, CE	\$31.83
ISSR-50DA	3-32 VDC	50 Amp	24-380 VAC	cURus, CE	\$29.93
ISSR-50DA-H	3-32 VDC	50 Amp	90-480 VAC	cURus, CE	\$40.38
ISSR-75DA-H	3-32 VDC	75 Amp	90-480 VAC	cURus, CE	\$46.55
IHPR-100DA-H	3-32 VDC	100 Amp	24-550 VAC	CE	\$93.58
ISSR-25AA-L	15-60 VAC	25 Amp	24-380 VAC	cURus, CE	\$25.18
ISSR-10AA	80-250 VAC	10 Amp	24-380 VAC	cURus, CE	\$21.38
ISSR-25AA	80-250 VAC	25 Amp	24-380 VAC	cURus, CE	\$25.18
ISSR-25AA-H	80-250 VAC	25 Amp	90-480 VAC	cURus, CE	\$31.83
ISSR-40AA-H	80-250 VAC	40 Amp	90-480 VAC	cURus, CE	\$34.68
ISSR-50AA	80-250 VAC	50 Amp	24-380 VAC	cURus, CE	\$36.10
ISSR-50AA-H	80-250 VAC	50 Amp	90-480 VAC	cURus, CE	\$42.56
ISSR-75AA-H	80-250 VAC	75 Amp	90-480 VAC	cURus, CE	\$51.30
IHPR-100AA-H	80-250 VAC	100 Amp	24-550 VAC	CE	\$104.98
ISSR-25LA	4-20 mA	25 Amp	90-250 VAC	cURus, CE	\$31.35
ISSR-40LA	4-20 mA	40 Amp	90-250 VAC	cURus, CE	\$42.75
ISSR-40LA-H	4-20 mA	40 Amp	250-480 VAC	cURus, CE	\$46.55
ISSR-50LA	4-20 mA	50 Amp	90-250 VAC	cURus, CE	\$52.25
ISSR-50LA-H	4-20 mA	50 Amp	250-480 VAC	cURus, CE	\$59.85
ISSR-75LA	4-20 mA	75 Amp	90-250 VAC	cURus, CE	\$66.50
ISSR-75LA-H	4-20 mA	75 Amp	250-480 VAC	cURus, CE	\$75.53
Three Phase Solid State Relays			Description		
Part Number	Input Voltage	Amps	Operating Voltage	Certification	Price
ITSR-25DA-H	4-32 VDC	25 amp	90-480 VAC	CE	\$81.23
ITSR-40DA-H	4-32 VDC	40 Amp	90-480 VAC	CE	\$88.83
ITSR-75DA-H	4-32 VDC	75 amp	90-480 VAC	CE	\$145.83
IESR-100DA-H	4-32 VDC	100 amp	90-480 VAC	CE	\$189.05
ITSR-25AA-H	80-250 VAC	25 Amp	90-480 VAC	CE	\$90.73
ITSR-40AA-H	80-250 VAC	40 Amp	90-480 VAC	CE	\$97.38
ITSR-75AA-H	80-250 VAC	75 Amp	90-480 VAC	CE	\$159.60

IESR-100AA-H 20-265 VAC/DC100 Amp 24-550 VAC CE \$198.55

Variable Resistance 500k

Part Number	Description	Certification	Price
ISSR-40VA	Adjustable Solid State Relay: Phase Switching: 40 Amp: Input: Variable Resistance 500k: 24-380 VAC	cURus, CE	\$31.83
VR-500Kohm (220VAC)	Potentiometer including Scale and Trimmer: The dial is 0-100 (Item needed for above item)	cURus, CE	\$6.65
SSR-VA-VR500K-A	Adjustable Solid State Relay: Phase Switching: 40 Amp: Input: Variable Resistance; Output: 24-380 VAC: with Potentiometer including scale and Trimmer; Dial is 0-100	cURus, CE	\$39.81
SSR-VA-VR500K-TSHS2	Adjustable Solid State Relay: Phase Switching: 40 Amp: Input: Variable Resistance; Output: 24380 VAC: with Potentiometer including scale and Trimmer; Dial is 0-100	cURus, CE	\$111.25
SSR-VA-VR500K-TSHS2-D	Adjustable Solid State Relay: Phase Switching: 40 Amp: Input: Variable Resistance; Output: 24380 VAC: with Potentiometer including scale and Trimmer; Dial is 0-100; DIN Rail Mounting	cURus, CE	\$127.40

Input Voltage = Turns SSR on and off (Current Prices May Vary-[Contact](#)for pricing)

Solid Staty Relay Accessories

Part Number	Description	Price
PPC-SSR	Protective Plastic Cover for SSR's (Touch safe)	\$3.00
IHS-50-H	1-Phase Heat Sink (2"H x 2"W x 3"L)	\$13.00

IHS-50	1-Phase Heat Sink (3.75" H x 2" W x 4" L)	\$17.75
IHS-150	3-Phase Heat Sink (3.75" H x 6" W x 4"L)	\$33.75
ITSR-100	3-Phase Heat Sink (3.75" H x 4" W x 4"L)	\$24.50
ISF11592A	110 VAC Fan for 3 Phase Heat Sink	\$19.90
ISF23092A	220 VAC Fan for 3 Phase Heat Sink	\$18.90
IHS-4258	Heat Transfer Film (3017" / .45mm Thick)	\$1.00
IHS-ESR-100	Heat Sink for IHPR-100DA-H Solid State Relay (3.25"Hx4"Lx3.75"W)	\$24.50
CF-100-DA-H-1	Cooling Fan for IHPR-100DA-H Solid State Relay 120V(3.125"x3.125"x1"T)	\$27.50
CF-100-DA-H-2	Cooling Fan for IHPR-100DA-H Solid State Relay 240V(3.125"x3.125"x1"T)	\$27.50
HIS-ESR-60	Brushed Aluminum(VF)1 Phase heat sink (2.375"Wx3.27"Hx6.75L)	\$19.20
FAN-DC24V-80	24 VDC Fan for 80mm Square	\$28.00
FAN-DC24V-91	24 VDC Fan for 91mm Square	\$28.00

[When to use heat sinks & Cooling Fans for SSRS](#)

For IHS-50 Heat Sink:

For line current ≥ 5 amps: No heat sink is required

For line current ≤ 12 amps: Use IHS-50 Heat Sink

For line current > 25 amps: Use IHS-50 Heat Sink with Fan

- To Protect the solid state relay from a short circuit of the load use I^2t value specified**

2. The rated current corresponds to resistive loads, if the solid state relays are applied to other loads, then follow these recommendations:

- Electric discharge lamps; use high voltage SSR's (H) on 240 VAC applications
 - Incandescent Lamps: Use SSR's rated for 4 x the incandescent lamp current
- Three Phase Motors: The rated current of the SSR must be rated for 4 x the three phase motor average
- Transformer Loads: The rated current of the SSR must be rated for more than 10 x the transformer current
 - Capacitor Loads: The rated current of the SSR must be more than 3 x the capacitor current

[ISSR Series Specifications and Technical Data Click Here](#)

ISSR Series 1 Phase Solid State Relays: Specifications DC to AC High Voltage Type				
Type	Terminal Type DC to AC			
Model	ISSR-25DA	ISSR-40DA	ISSR-50DA	ISSR-75DA
Rated Load Current	25 amp	40 amp	50 amp	75 amp
General Data		Input Data		
Dielectric strength	Over 2.5KVAC/1min.		Operating Voltage 3~32VDC	
Isolation Strength	Over 50MΩ/50VDC		Min. ON/OFF Voltage ON>2.4V , OFF < 1.0V	
Operating Temperature	20°C ~ + 80°C		Trigger Current 7.5mA / 12V	
Housing Material	Intensive ABS		Control Method Zero Cross Trigger	
Weight	Appr. 125g			
Operating Data				
Operating Voltage	24 ~ 380 VAC			
Min. Blocking voltage	600 VAC <Repetitive>			
Voltage Drop	1.6V / 25°C			
Max. Duration Current	550A	820A	550A	820A
Leakage Current Max.	6.0mA	6.0mA	6.0mA	6.0mA
Response Time	ON <10ms, OFF<10ms			

ISSR Series 1 Phase Solid State Relays: Specifications DC to AC High Voltage Type

Type	Terminal Type DC to AC High Voltage Type			
Model	ISSR-25DA-H	ISSR-40DA-H	ISSR-50DA-H	ISSR-75DA-H
Rated Load Current	25 amp	40 amp	50 amp	75 amp
General Data		Input Data		
Dielectric strength Over 2.5KVAC/1min.			Operating Voltage 3~32VDC	
Isolation Strength Over 50MΩ/50VDC			Min. ON/OFF Voltage ON>2.4V , OFF < 1.0V	
Operating Temperature 20°C ~ + 80°C			Trigger Current 7.5mA / 12V	
Housing Material Intensive ABS			Control Method Zero Cross Trigger	
Weight Appr. 125g				
Operating Data				
Operating Voltage 90 ~ 380 VAC				
Min. Blocking voltage 600 VAC <Repetitive>				
Voltage Drop 1.6V / 25°C				
Max. Duration Current	550A	820A	550A	820A
Leakage Current Max.	6.0mA	6.0mA	6.0mA	6.0mA
Response Time ON <10ms, OFF<10ms				

ISSR Series 1 Phase Solid State Relays: Specifications AC to AC

Type	Terminal Type AC to AC			
Model	ISSR-25AA	ISSR-40AA	ISSR-50AA	ISSR-75AA
Rated Load Current	25 amp	40 amp	50 amp	75 amp
General Data		Input Data		
Dielectric strength Over 2.5KVAC/1min.			Operating Voltage 80 ~ 250 VAC 50/60Hz	
Isolation Strength Over 50MΩ/50VDC			Min. ON/OFF Voltage ON>45V , OFF < 35V	
Operating Temperature 20°C ~ + 80°C			Trigger Current 5.0mA / 110 VAC Max.	
Housing Material Intensive ABS			Control Method Zero Cross Trigger	
Weight Appr. 125g				
Operating Data				
Operating Voltage 24 ~ 380 VAC				
Min. Blocking voltage 600 VAC <Repetitive>				
Voltage Drop 1.6V / 25°C				
Max. Duration Current	550A	820A	550A	820A

Leakage Current Max.	6.0mA	6.0mA	6.0mA	6.0mA
Response Time ON <10ms, OFF<10ms				
ISSR Series 1 Phase Solid State Relays: Specifications AC to AC High Voltage Type				
Type	Terminal Type AC to AC High Voltage			
Model	ISSR-25AA-H	ISSR-40AA-H	ISSR-50AA-H	ISSR-75AA-H
Rated Load Current	25 amp	40 amp	50 amp	75 amp
General Data		Input Data		
Dielectric strength	Over 2.5KVAC/1min.		Operating Voltage 80 ~ 250 VAC 50/60Hz	
Isolation Strength	Over 50MΩ/50VDC		Min. ON/OFF Voltage ON>45V , OFF < 35V	
Operating Temperature	20°C ~ + 80°C		Trigger Current 5.0mA / 110 VAC Max.	
Housing Material	Intensive ABS		Control Method Zero Cross Trigger	
Weight	Appr. 125g			
Operating Data				
Operating Voltage	90 ~ 480 VAC			
Min. Blocking voltage	600 VAC <Repetitive>			
Voltage Drop	1.6V / 25°C			
Max. Duration Current	550A	820A	550A	820A
Leakage Current Max.	6.0mA	6.0mA	6.0mA	6.0mA
Response Time ON <10ms, OFF<10ms				

ITSR Series Specifications

ITSR Series 1 Phase Solid State Relays: Specifications DC to AC						
Type	Standard Type			High Voltage Type		
Model	ITSR-25DA	ITSR-40DA	ITSR-75DA	ITSR-25DA-H	ITSR-40DA-H	ITSR-75DA-H
Rated Load Current	25A	40A	75A	25A	40A	75A
Max. One Cycle Surge	275A	470A	820A	275A	410A	820A

Leakage Current	12.3mA @ 380V	15.5mA @ 440V
Operating Voltage	24~380VAC	90~480VAC
Input Voltage	4~32VCD	
ON/OFF Voltage	On >3.6V/OFF <2.4V	
Trigger Current	7.5A/12V	
Control Method	Zero Cross Trigger	
Min. Block Voltage	600VAC <Repetitive>	
Peak Voltage	Over 1200V	
Response Time	ON <20ms/OFF <20ms	
Dielectric Strength	Over 2.5KVAC/1min	
Isolation Strength	Over 50m Ω / 500VDC	
Circumstance	Negative 20°C ~ +80°F	
Weight	Appr.390g	

ITSR Series 1 Phase Solid State Relays: Specifications AC to AC

Type	Standard Type			High Voltage Type		
Model	ITSR-25AA	ITSR-40AA	ITSR-75AA	ITSR-25AA-H	ITSR-40AA-H	ITSR-75AA-H
Rated Load Current	25A	40A	75A	25A	40A	75A
Max. One Cycle Surge	275A	470A	820A	275A	410A	820A
Leakage Current	12.3mA @ 380V			15.5mA @ 440V		
Operating Voltage	24~380VAC			90~480VAC		
Input Voltage	80~250 VAC					
ON/OFF Voltage	On >45V/OFF <35V					
Trigger Current	5.0 mA / 110 V Max.					
Control Method	Zero Cross Trigger					
Min. Block Voltage	600VAC <Repetitive>					
Peak Voltage	Over 1200V					
Response Time	ON <20ms/OFF <20ms					
Dielectric Strength	Over 2.5KVAC/1min					
Isolation Strength	Over 50m Ω / 500VDC					

Circumstance	Negative 20°C ~ +80°F
Weight	Appr.390g

IHPR & IESR Series Specifications

IHPR & IESR 1 and 3 Phase Solid State Relays: DC to AC & AC to AC High Voltage

Type	1 Phase High Voltage Type		3 Phase High Voltage Type	
	Model IHPR-100DA-H	IHPR-100AA-H	IESR-100DA-H	IESR-100AA-H
Rated Current	100 A max.	100 A. Max	100 A. Max	100 A. Max
I²t for fusue	7200A ² s	7200A ² s	7200 A	7200 A
Surge Current	1750 A	1750 A	1750 A	1750 A
Peak Voltage	1200 VAC	1200 VAC	1200 VAC	1200 VAC
Output Voltage	24-550 VAC		24 ~ 550 VAC	
General Specifications				
Input Voltage	DC: 4 ~ 32 VDC : AC: 20~265VAC/DC			
Turn off Voltage	DC: <3.0 VDC : AC < 10 VAC/ DC			
Input Current	DC: 30 mA Max. : AC: 3 VA Max.			
Control Method	Zero Cross Switching			
Leakage current	5 mA			
Response Time	8.3 ms (60Hz)			
Over Heat Protection	Turn off ouptut over 120°C : Reset below 110°C			
Input immunity	2 KVrms (EN61000-4-4)			
Isolation strength	4 KVrms (EN60950/VDE0805)			
Insulation strength	100MΩ / 500VDC (EN60950/VDE0805)			
Circumstance	-40° ~ +80°C : 35~ 85% RH			