

Product Details and Certifications

Cross Reference RA Part Number: 700-SH10HZ25 B

Product: 700-SH10HZ25

Description: 700S-SH Hockey Puck Style, Solid-State Relay, w/ LED Diag. Indicator, w/ Zero Cross Function, Rated Output of 10 Amp @ 42...530V AC, Rated Input of 4...32V DC



Representative Photo Only (actual product may vary based on configuration sections)

CONTROL RELAY DATA

Bulletin Number	700-S Solid State Relay
Input-to-Output Isolation Method	Optocoupler
Switching Type	Zero Cross
LED Indicator	Yes
Rated Output (Load) Max. Current and Voltage Range	10 Amp @ 42...530V AC
Input/Control Voltage	4...32V DC

CERTIFICATIONS AND APPROVALS

UL	
CSA	
IEC	
CE	
For UL Certifications Directory:	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

Bulletin No.	700-SF		700-SH	700-SK			
Type	Square Base, Socketed		Hockey Puck	Slim Line, Socketed			
Features	Compatible with 700-HN116 socket, LED status, zero-cross AC switching		Panel/DIN Mount, High Current, Protective Cover, LED Status	Compatible with 700-HN121 socket. Supports Input (sensor) module or Output (SSR) module			
Load Type	AC (47...63 Hz)	DC	AC (47...63 Hz) 3...60V DC	Output Module		Input Module	
				AC (47...63 Hz)	DC	AC (47...63 Hz)	DC
Load Voltage Range	75...264V AC	3 ... 52.8V DC	3...50V DC, 24...265V AC 42...530V AC, 42...265V AC, 42...660V AC	75 ... 264V AC	4 ... 60V DC, 40 ... 200V DC	Field Input: 60... 264V AC	Field Input: 6.6... 32V DC
Load Current Max. (Continuous)	3 A		10 A/100 A*	2 A	2A @ 60V, 1.5A @ 200V	Supply Current: 0.1 ... 100 mA	Supply Current: 0.1 ... 100 mA
Max. Leakage Current to Load	5mA @ 100V AC, 10mA @ 200V AC	5mA @ 50V DC	<3 mA	1.5 mA	1 mA	5 µA	5 µA
Zero Cross Load Switching	Yes	Not Applicable	Yes	Yes (optional)	N/A	No	N/A
Equivalent Electromechanical Relay Contact Arrangement	Form A		Form A	Form A			
Rated Control (Input) Voltage	4V DC or 24V DC		3...32V DC, 4...32V DC, 80...130V AC, 20...260V AC 20...280V AC/22...48V DC	5 ... 24 V DC	5 ... 24 V DC	5 ... 24V DC	5 ... 24V DC
LED Indicator	Yes		Yes	Yes			
Mounting Method	Panel or DIN with socket		Panel without heat sink, Panel or DIN with heat sink	Panel or DIN with socket			
Dielectric Strength	1500V AC, 50/60 Hz, 1 min.		>4000V AC RMS	4000V AC, 50/60 Hz, 1 min.			
Certification	cURus, CE, VDE		cURus, CE, CSA	cURus, CE, TÜV			
Max. Ambient Operating Temperature	-30...80 °C (no condensation)		-20...70 °C (no condensation)	-30...80 °C (no condensation)			
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* With heat sink




Bulletin 700-SH — Hockey Puck Relay

- 100 A max. continuous load (output) current with appropriate heat sink
- 264V AC, 530V AC, or 660V AC max. load voltage options
- 3...32V DC, 4...32V DC, 80...130V AC, 200...260V AC, 20...280V AC/22...48V DC control (input) voltage options
- LED indicator for input/logic ON/OFF status monitoring
- Protective cover for added safety

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Product Selection

	Input-to-Output Isolation Method	Zero Cross Function	Status Indicator	Output (Load) Max. Continuous Current and Rated Voltage Range†	Rated Input Control Voltage	Cat. No.*
	Optocoupler	Yes	Yes	10 A @ 42...265V AC	3...32V DC	700-SH10JZ24
				10 A @ 42...265V AC	80...130V AC	700-SH10JA12
				10 A @ 42...265V AC	200...260V AC	700-SH10JA22
				10 A @ 42...530V AC	4...32V DC	700-SH10HZ25 (Series B)
				25 A @ 42...530V AC	4...32V DC	700-SH25HZ25 (Series B)
				25 A @ 24...265V AC	3...32V DC	700-SH25GZ24
				25 A @ 24...265V AC	20...280V AC/22...48V DC	700-SH25GA24
				50 A @ 24...265V AC	3...32V DC	700-SH50GZ24
				50 A @ 24...265V AC	20...280V AC/22...48V DC	700-SH50GA24
				50 A @ 42...530V AC	4...32V DC	700-SH50HZ25
				25 A @ 42...660V AC	4...32V DC	700-SH25VZ25
				25 A @ 42...660V AC	20...280V AC/22...48V DC	700-SH25VA24
				50 A @ 42...660V AC	4...32V DC	700-SH50VZ25
				50 A @ 42...660V AC	20...280V AC/22...48V DC	700-SH50VA24
				75 A @ 42...530V AC	4...32V DC	700-SH75HZ25
				75 A @ 42...660V AC	4...32V DC	700-SH75VZ25
				75 A @ 42...530V AC	20...280V AC/22...48V DC	700-SH75HA24
				75 A @ 42...660V AC	20...280V AC/22...48V DC	700-SH75VA24
				100 A @ 42...530V AC	4...32V DC	700-SH100HZ25
				100 A @ 42...530V AC	20...280V AC/22...48V DC	700-SH100HA24
				100 A @ 42...660V AC	4...32V DC	700-SH100VZ25
				100 A @ 42...660V AC	20...280V AC/22...48V DC	700-SH100VA24
Yes	No	5A @ 3...60V DC	3...32V DC	700-SH5FZ24		
Yes	Yes	25 A @ 90...280V AC	4...20 mA DC	700-SH25WA25		
		50 A @ 90...280V AC	4...20 mA DC	700-SH50WA25		



* All catalog numbers are Series A unless noted.
 † This type is also called Phase Angle 0.
 ‡ When used with heat sink.

Control/Input Ratings

Cat. No.	Operating Voltage	Input Current @ Max. Voltage	Voltage Level Pickup Voltage	Drop-Out Voltage
700-SH10J...	3...32V DC	12 mA	2.75V DC max.	1.2V DC min.
	80...130V AC	13 mA	70V AC max.	30V AC min.*
	200...280V AC	13 mA	190V AC max.	90V AC min.
700-SH_ _ H...	4...32V DC	12 mA	4V DC max.	1V DC min.
	20...280V AC/22...48V DC	20 mA	18V AC/DC	6V AC/DC
700-SH_ _ G...	3...32V DC	12 mA	2.5V DC	1.2V DC
	20...280V AC/22...48V DC	20 mA	-32V DC	6V AC/DC
700-SH_ _ V...	4...32V DC	12 mA	3.5V DC	1.2V DC
	20...280V AC/22...48V DC	20 mA	18V AC/DC	6V AC/DC
700-SH_ _ W...	Current Control	4...20 mA	—	—
700-SH_ _ F...	3...32V DC	12 mA	3V DC max.	1.0V DC

* When specified heatsink is used.

Output Ratings

Cat. No.	Load Voltage Range	Applicable Load Current with Heat Sink [A]*
700-SH5FZ24	3...60V DC	0.001...5 A DC
700-SH10J...	42...265V AC	0.15...10
700-SH10H...	42...530V AC	0.15...10
700-SH25G...	24...265V AC	0.15...25
700-SH25H...	42...530V AC	0.15...25
700-SH25V...	42...660V AC	0.15...25
700-SH25W...	90...280V AC	0.15...25
700-SH50G...	24...265V AC	0.15...50
700-SH50H...	42...530V AC	0.15...50
700-SH50V...	42...660V AC	0.15...50
700-SH50W...	90...280V AC	0.15...50
700-SH75H...	42...530V AC	0.15...75
700-SH75V...	42...660V AC	0.15...75
700-SH100H...	42...530V AC	0.15...100
700-SH100V...	42...660V AC	0.15...100

* AC unless indicated.

Characteristics

Description	Cat. Nos. 700-SH10, 25, 50 (not including 700-SH_ _W)	Cat. Nos. 700-SH75, 100
	Pick-up Time	1/2 of load power source cycle time(DC input) 1 of load power source cycle time (AC input)
Drop-out Time	1/2 of load power source cycle time (DC input) 2 of load power source cycle time (AC input)	
Output ON Voltage Drop	1.6V (RMS) max.	
Output Leakage Current	<3 mArms 100 MΩ min (@ 500V DC)	
Insulation Resistance	100 MΩ min. (at 500V DC)	
Dielectric Strength	>4000 VACrms	
Vibration Resistance	Malfunction: 10...55 Hz, 1.5 mm double amplitude	
Shock Resistance	Malfunction: 1000 m/s ²	
Ambient Temperature	Operating: -20...+70 °C with no icing or condensation Storage: -40...+100 °C with no icing or condensation	
Ambient Humidity	0...95% no condensing	
Standards Compliance	UL 508, CSA C22.2 No. 14, EN/IEC 60947-1, -4-2, -4-3, EN 61000-6-2, EN 61000-6-4	
Certifications	cURus Recognized (File No. E14843, Guide NPNT2), CSA Certified (File No. 240924)	
Weight	Approx. 60 g	Approx. 100 g



Characteristics

Description	Cat. No. 700-SH_W
Pick-up Current	4.2 mA
Drop-out Current	4.1 mA
Voltage Drop	<10V DC @ 20 mA
Leakage Current	<3 mA
Insulation Voltage	<4000 Vrms
Vibration Resistance	Malfunction: 10...55 Hz, 1.5 mm double amplitude
Shock Resistance	Malfunction: 1000 m/s ²
Ambient Temperature	Operating: -20...+70 °C with no icing or condensation
Ambient Humidity	0...95% no condensing
Standards Compliance	UL 508, CSA C22.2 No. 14, EN/IEC 60947-1, -4-2, -4-3, EN 61000-6-2, EN 61000-6-4
Certifications	cURus Recognized (File No. E14843, Guide NPNT2), CSA Certified (File No. 24024)
Weight	Approx. 60 g

Description	Cat. No. 700-SH5FZ24
Pick-up Voltage	<3V DC
Drop-out Voltage	>1V DC
Activating Frequency	<100 Hz
Input Impedance	1kΩ
Response Time Pick-up @ Vin > 5V	<4000 μS
Response Time Drop-out	<1 mS
On-state Voltage Drop @ Rated Current	<1.5V
Off-state Current Drop @ Rated Voltage	<1 mA
Insulation Voltage	<1 mA
Vibration Resistance	Malfunction: 10...55 Hz, 1.5 mm double amplitude
Shock Resistance	Malfunction: 1,000 m/s ²
Ambient Temperature	Operating: -20...+70 °C with no icing or condensation
Ambient Humidity	0...95% no condensing
Standards Compliance	UL 508, CSA C22.2 No. 14, EN/IEC 60947-1, -4-2, -4-3, EN 61000-6-2, EN61000-6-4
Certifications	cURus Recognized (File No. E14843, Guide NPNT2), CSA Certified (File No. 240924)
Weight	Approx. 60 g

Surge Current vs. Ambient Temperature Characteristics

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