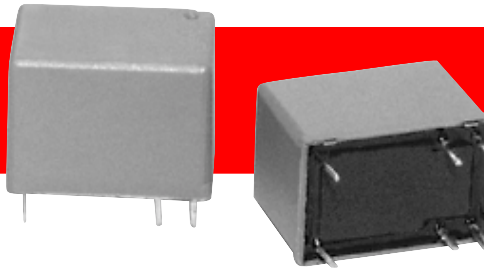
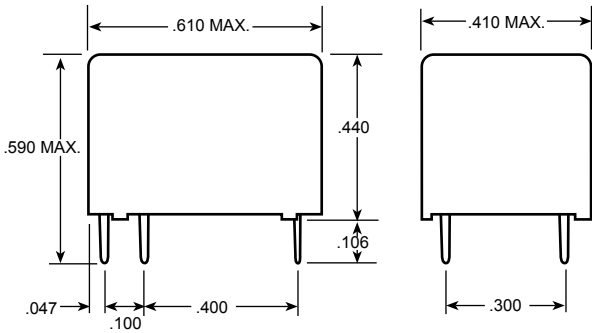


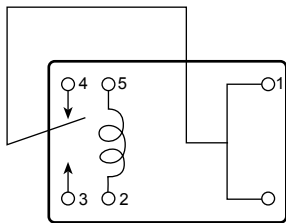
CKB/CKBS



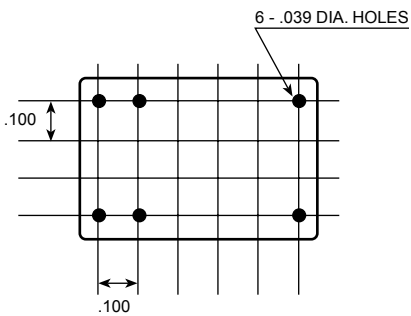
CKB/CKBS



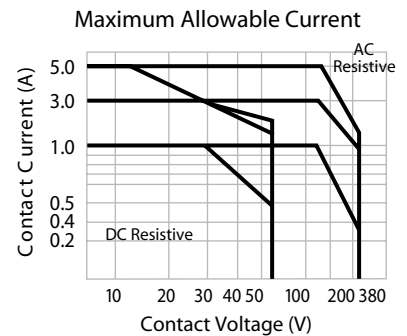
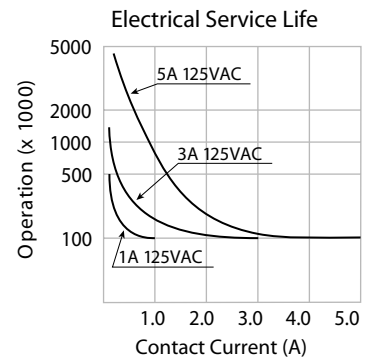
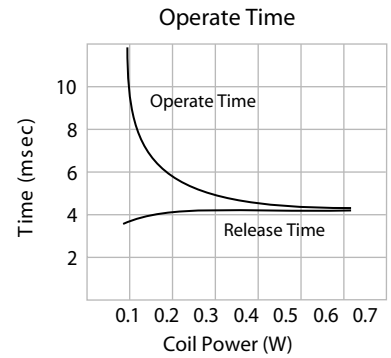
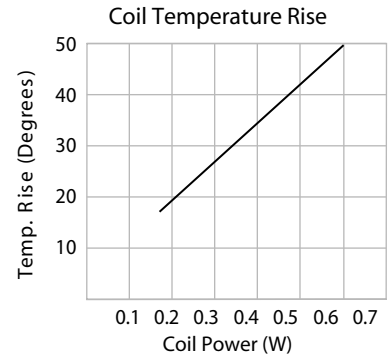
BOTTOM VIEW



DRILLING PLAN



Reference Data



Performance (At Initial Value)

ITEM	TYPE
	CKB / CKBS
Contact Resistance	100 mΩ Max.
Operate Time	5 ms Max.
Release Time	5 ms Max.
Dielectric Strength: Between Coil and Contact Between Contacts	500 V 50 Hz 500 V 50 Hz
Surge Resistance	1000 V (between coil and contact 1x40 μ sec.)
Insulation Resistance	100 MΩ Min. (500 VDC)
Max. ON/OFF Switching: Mechanically Electrically	300 operations/min. 30 operations/min.
Operating Ambient Temperature	-25°C to 55°C
Operating Humidity	40°C 85%
Coil Temperature Rise	UL Specs
Vibration: Endurance Error Operation	10 to 55 Hz Double Amplitude 1.5 mm 10 to 55Hz Double Amplitude 1.5 mm
Shock: Endurance Error Operation	10 G Min. 5 G Min.
Life Expectancy: Mechanically Electrically	10 ⁷ operations/min. (no load) 10 ⁵ operations/min. (at rated load)
Weight	3.5 grams

**CKB
CKBS**

Coil Specification (At 20°C)

TYPE	Nominal Voltage (VDC)	Nominal Current (mA)		Coil Resistance (Ω) ±10%		Must Operate Voltage (VDC) (Max)	Must Release Voltage (VDC) (Min)	Maximum Voltage (VDC)	Coil Power (W)
		CKB	CKBS	CKB	CKBS				
CKB/CKBS	3	120	69	25	45	2.25	0.3	110% of Rated Voltage	CKB Approx. 0.36 CKBS Approx. 0.20
	5	72	45	75	125	3.75	0.5		
	6	60	33	100	180	4.50	0.6		
	9	40	22	225	405	6.75	0.9		
	12	30	17	400	728	9.00	1.2		
	24	15	8.6	1600	2880	18.0	2.4		

Contact Rating

ITEM	TYPE
	CKB / CKBS
Contact Capacity Resistive Load (Cos. φ = 1) Inductive Load (Cos. φ = 0.4 L/R = 7 msec.)	See Chart See Chart
Rated Carrying Current	3 A
Max. Allowable Voltage	DC 110 V, AC 380 V
Max. Allowable Current	3 A
Contact Material	AgSnO ₂

Ordering Information

CKB S 1C 12VDC

Coil Voltage
See coil specifications
for available voltages.
Other voltages available
as special orders.

Contact Configuration
1A – SPST; 1C – SPDT

S – Sensitive Coil
Nil – Standard Coil

UL #E96834(M) (U.S. & Canada)

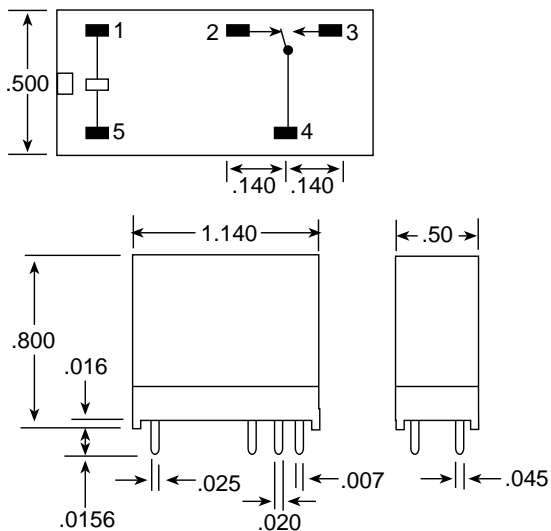
SKEB



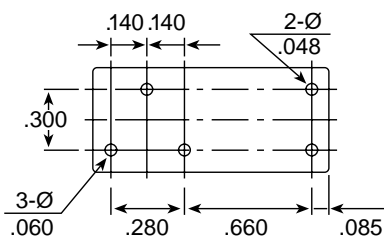
SKED-1C

SKED-2C

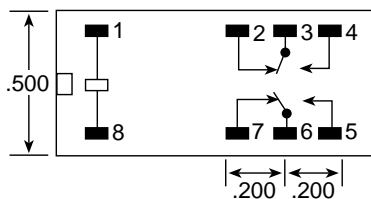
SKED-1C



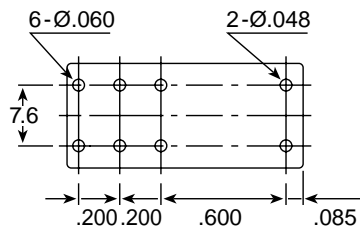
BOTTOM VIEW



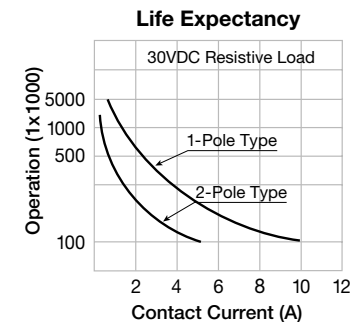
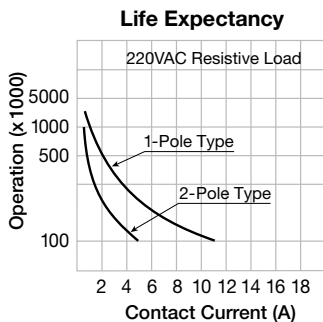
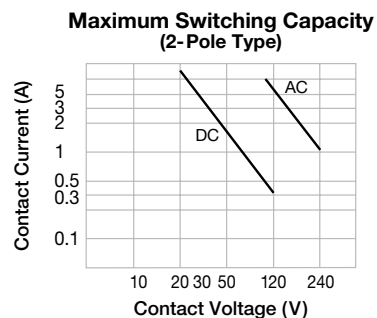
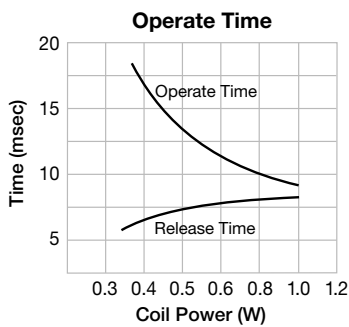
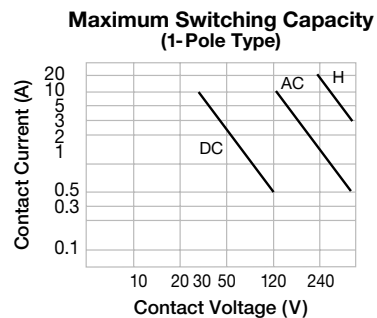
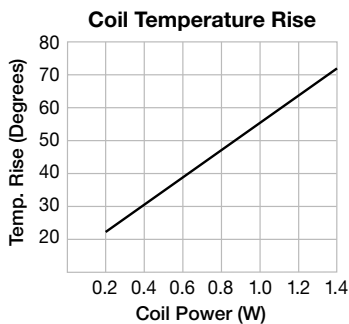
SKED-2C



BOTTOM VIEW



Reference Data



sky
electronics
INTERNATIONAL

Performance (At Initial Value)

ITEM	TYPE
	SKEB
Contact Resistance	100 mΩ Max.
Operate Time	20 mSec. Max.
Release Time	8 mSec. Max.
Dielectric Strength: Between Coil and Contact Between Contacts	5000 VAC at 50 Hz 1000 VAC at 50 Hz
Surge Resistance	10,000 V (between coil and contact 1 x 40 msec)
Insulation Resistance	100 MΩ Min. at 500 VDC
Max. ON/OFF Switching: Mechanically Electrically	30 operations/min. 300 operations/min.
Operating Ambient Temperature	-30°C to 55°C
Operating Humidity	45% to 85% RH
Coil Temperature Rise	45°C Max.
Vibration: Endurance Error Operation	10 to 55 Hz Dual Amplitude 1.5 mm 10 to 55 Hz Dual Amplitude 1.5 mm
Shock: Endurance Error Operation	100 G Min. 10 G Min.
Life Expectancy: Mechanically Electrically	10 ⁷ operations/min. (no load) 10 ⁵ operations/min. (at rated load)
Weight	13 grams

SKEB

Coil Specification (At 20°C)

Type	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω ± 10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
SKEB SKEBH	3	176.5	17	About 0.54	80% Maximum	5% Minimum	130%
	5	106.4	47				
	6	88	68				
	9	58	155				
	12	44.4	270				
	24	21.8	1100				
	48	10.9	4400				

Contact Rating

ITEM	TYPE
	SKEB SKEBH
Contact Capacity Resistive Load (Cos. φ = 1) Inductive Load (Cos. φ = 0.4 L/R = 7 msec.)	See Chart See Chart
Rated Carrying Current	SPDT: 10 A SPDT: 16 A SPST-NO: 10 A, TV-8 SPST-NO: 16 A DPDT: 5 A — DPST-NO: 5 A, TV-3 —
Max. Allowable Voltage	DC 110 V, AC 250 V
Max. Allowable Current	Std: 10 A; H: 16 A
Max. Allowable Power Force	Std: 1200 VA, 300 W H: 1800 VA, 400 W
Referential Min. Applicable Load	10 mA; 10 VDC
Contact Material	AgSnO ₂

Ordering Information

SKEB H 1C 12VDC

Coil Voltage
See coil specifications for available voltages. Other voltages available as special orders.

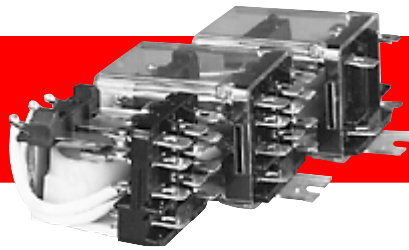
Contact Configuration
1A, 1C, 2A, 2C

Blank – No option
H – 1A or 1C 16 Amp

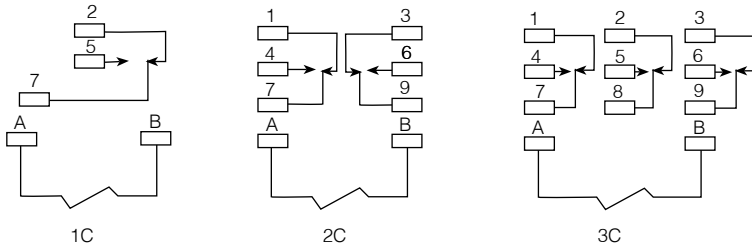
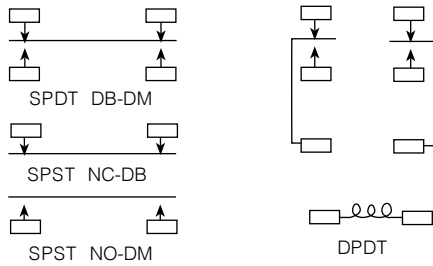
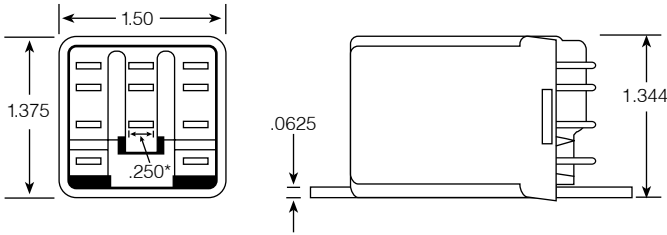
UL #E96834(M) (U.S. & Canada)



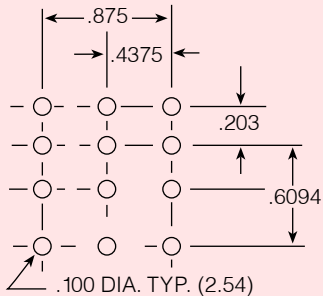
SKH/SKHT/SKHB



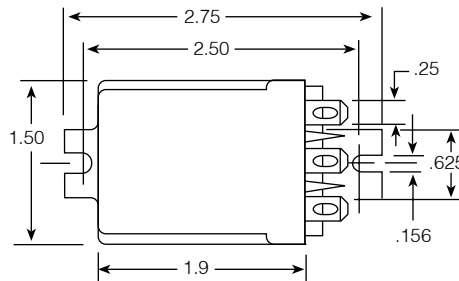
SPDT



P.C. MOUNT

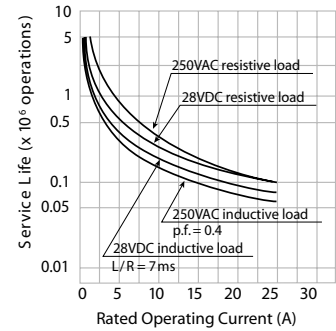


SKHT TAB MOUNT

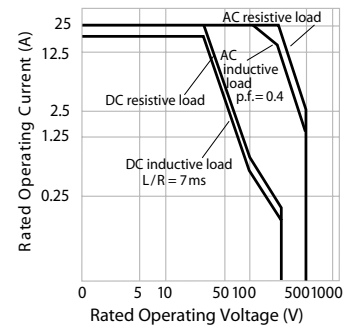


Reference Data

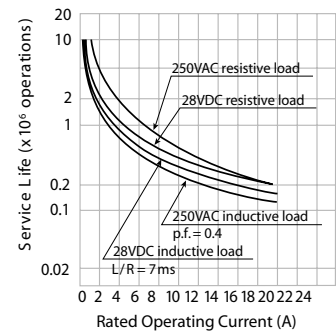
Electrical Service Life
SKHP-1C, SKHP-2C



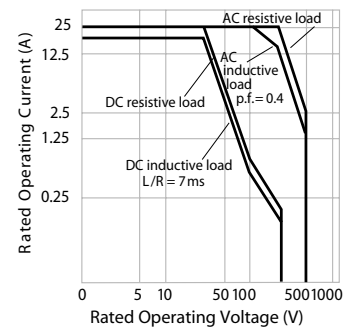
Maximum Switching Capacity
SKHP-1C, SKHP-2C



Electrical Service Life
SKHP-3C



Maximum Switching Capacity
SKHP-3C



Performance (At Initial Value)

ITEM	TYPE
	SKH / SKHT / SKHB
Contact Resistance	50 mΩ Max.
Operate Time	15 msec Max.
Release Time	10 msec Max.
Dielectric Strength: Between Coil and Contact Between Contacts	AC 1500 V AC 500 V
Insulation Resistance	100 MΩ Min. (500 VDC)
Operating Ambient Temperature	-45°C to 70°C
Pull-in Voltage	AC — 85% of nominal voltage DC — 75% of nominal voltage
Life Expectancy: Mechanically Electrically	10,000,000 operations/min. 100,000 operations/min.

SKH
SKHT
SKHB

Coil Specification (At 20°C)

AC Coil Voltage		Resist Ohms	DC Coil Voltage	Resist Ohms	Maximum Voltage
SP	6V	4.2	6V	32.1	
	12V	18	12V	120	
	24V	72	24V	472	
DP	120V	1700	48V	1800	
	240V	7200	110V	10000	
3P	6V	3.2	6V	32.1	
	12V	14	12V	120	
	24V	60	24V	340	
	120V	1300	48V	1360	
	240V	4300	110V	8500	

Contact Rating

ITEM	TYPE
	SKH / SKHT / SKHB
Contact Capacity Resistive Load (Cos. ϕ = 1)	See Chart
Inductive Load (Cos. ϕ = 0.4 L/R = 7 msec.)	See Chart
Rated Carrying Current	25 A
Max. Allowable Voltage	600 V
Max. Allowable Current	25 A
Max. Allowable Power Force	3000 W
Referencial Min. Applicable Load	100 MA
Contact Material	AgCdO

Ordering Information

SKH T L 1C 12VAC

Coil Voltage
See coil specifications
for available voltages.
Other voltages available
as special orders.

Contact Configuration
1C, 2C, 3C

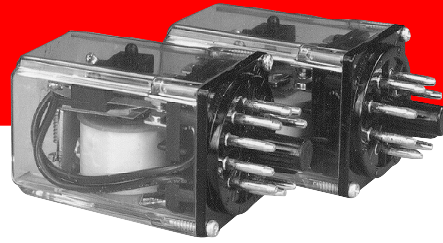
L – Lamp
M – Push Button

P – Plug In
B – Printed Circuit
T – Side Tab Mount
TT – Top Tab Mount

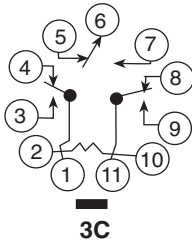
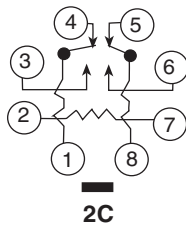
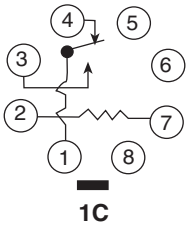
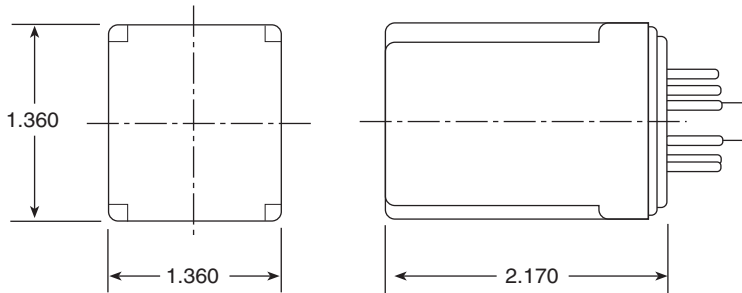
UL #E96834(M) (U.S. & Canada)

C.S.A. #LR83798-1

SKKP

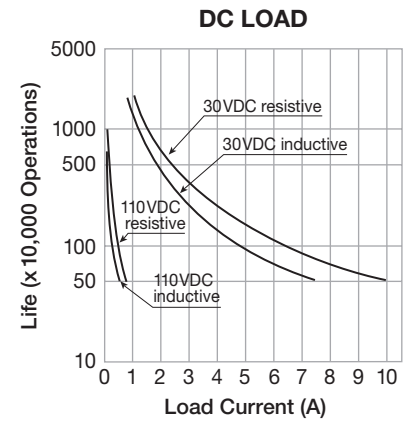
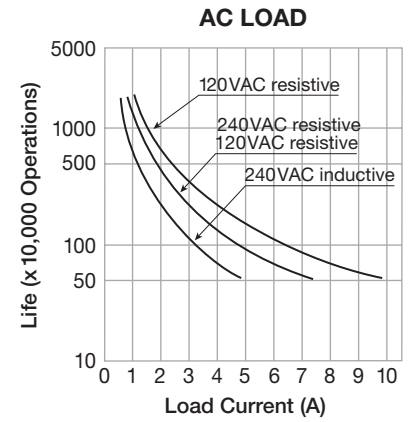


SPDT



Reference Data

Electrical Life



Performance (At Initial Value)

ITEM	TYPE
	SKKP
Contact Resistance	50 mΩ Max.
Operate Time	15 msec Max.
Release Time	10 msec Max.
Dielectric Strength: Between Coil and Contact Between Contacts	AC 1500 V, 50/60 Hz (1 minute) AC 500 V, 50/60 Hz (1 minute)
Surge Resistance	1000 V (between coil and contact 1x40 μ sec.)
Insulation Resistance	100 MΩ Min. (500 VDC)
Max. ON/OFF Switching: Mechanically Electrically	300 operations/min. 30 operations/min.
Operating Ambient Temperature	-45°C to +70°C (no water condensation or water drop)
Operating Humidity	85% at +40°C
Coil Temperature Rise	35° Max. (at rated coil voltage)
Pull-in Voltage	AC — 85% of nominal voltage DC — 80% of nominal voltage
Shock: Endurance Error Operation	100 G Min. 10 G Min.
Life Expectancy: Mechanically Electrically	10,000,000 operations/min. 100,000 operations/min.
Weight	About 85 grams

SKKP

Coil Specification (At 20° C)

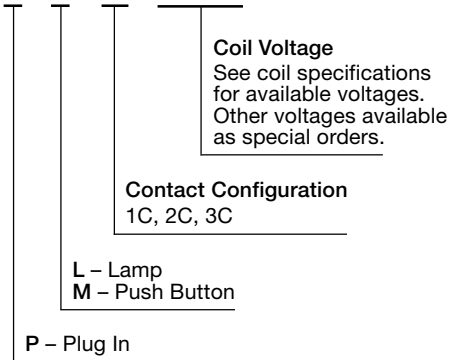
AC Coil Voltage	Resist Ohms	DC Coil Voltage	Resist Ohms	Maximum Voltage
6V	6	6V	32	110% of Rated Voltage
12V	21	12V	120	
24V	85	24V	472	
48V	385	48V	1800	
110V	1700	110/125V	10000	
120V	2250			
220V	7200			
240V	9110			

Contact Rating

ITEM	TYPE
	SKKP
Rated Carrying Current	10 A
Max. Allowable Voltage	220 VAC, 110 VDC
Max. Allowable Current	10 A
Max. Allowable Power Force	660 VA, 48 W
Contact Material	AgCdO

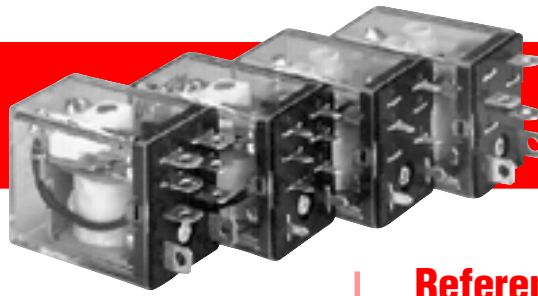
Ordering Information

SKK P L 1C 12VAC

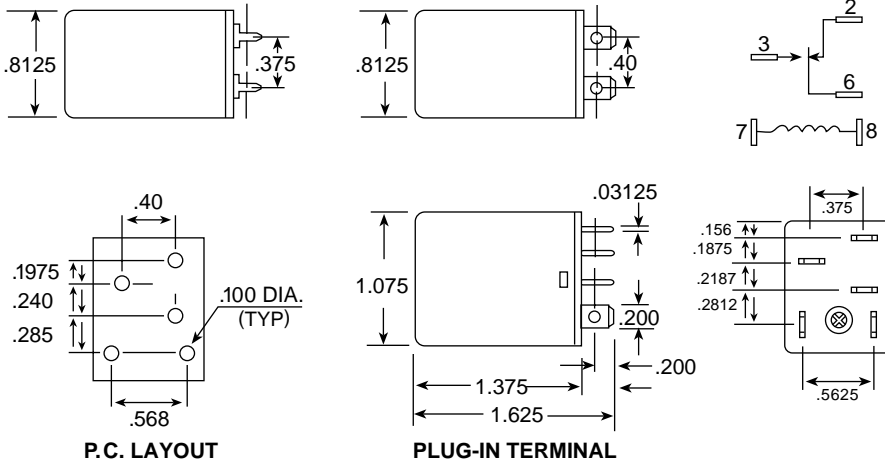


UL #E96834(M) (U.S. & Canada)
C.S.A. #LR83798-1

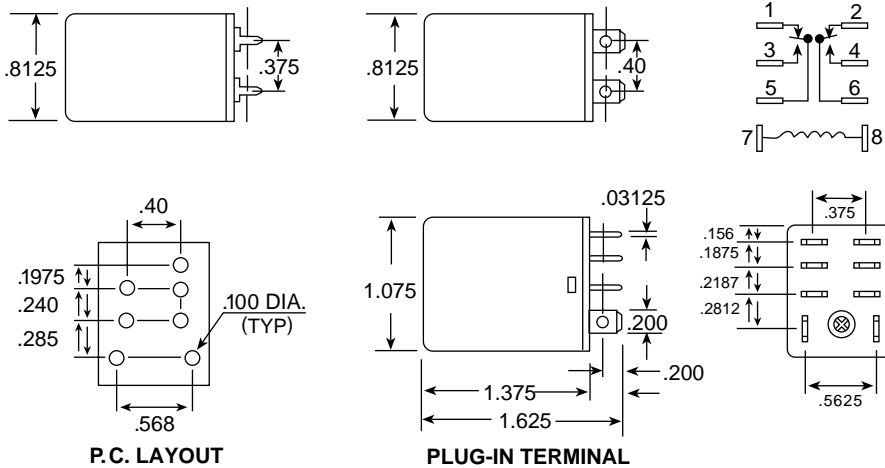
SKNP-1C,2C



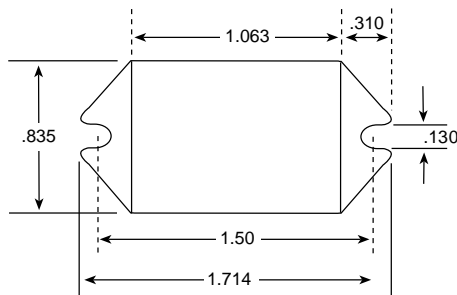
SPDT



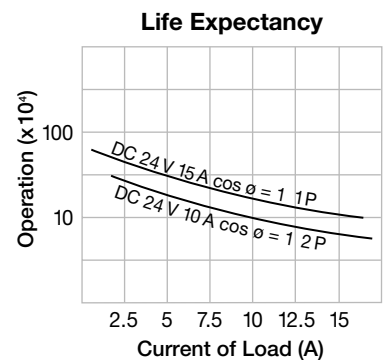
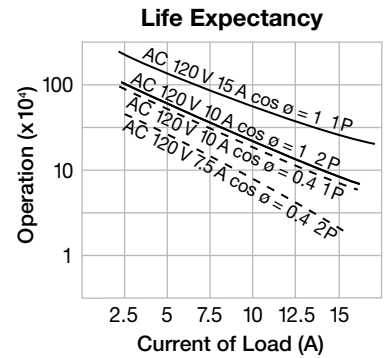
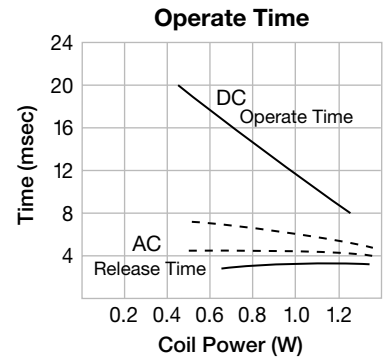
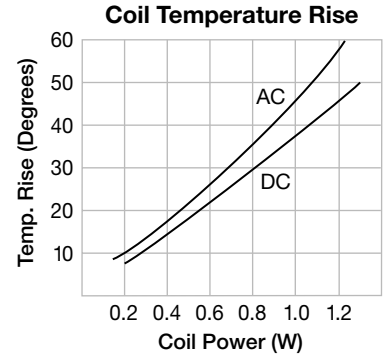
DPDT



SKNT TAB MOUNT



Reference Data

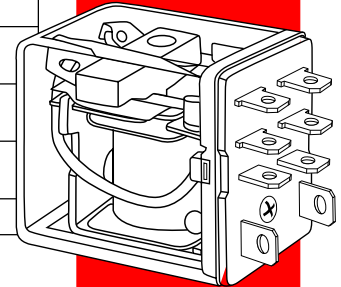


Performance (At Initial Value)

ITEM	TYPE
	1 Pole / 2 Pole
Contact Resistance	100 m Ω Max.
Operate Time	25 msec Max.
Release Time	25 msec Max.
Dielectric Strength: Between Coil and Contact Between Contacts	AC 1500 V, 50/60 Hz (1 minute) AC 1000 V, 50/60 Hz (1 minute)
Surge Resistance	3000 V (between coil and contact 1x40 μ sec.)
Insulation Resistance	100 M Ω Min. (500 VDC)
Max. ON/OFF Switching: Mechanically Electrically	240 operations/min. 30 operations/min.
Operating Ambient Temperature	-25 °C to +55 °C (no water condensation and no water drop)
Operating Humidity	45% to 85% R.H.
Coil Temperature Rise	60 ° Max. (at rated coil voltage)
Vibration: Endurance Error Operation	10 to 55 Hz Double Amplitude 1.0 mm 10 to 55 Hz Double Amplitude 1.0 mm
Shock: Endurance Error Operation	100 G Min. 10 G Min.
Life Expectancy: Mechanically Electrically	10,000,000 operations/min. (no load) 100,000 operations/min. (at rated load)
Weight	About 35 grams

SKNP- 1C, 2C

Socket:
DSM-8, DSM-8F,
SI-8, or SPB-8



Coil Specification (At 20°C)

TYPE	Nominal Voltage (VDC) (VAC)	Nominal Current (mA) 60 Hz	Coil Resistance (Ω) ±10%	Power Consumption	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
AC Coil	6	170	10	About 1.0 to 1.3 VA (60 Hz)	80% Max.	30% Min.	110%
	12	110	85				
	24	45	160				
	48	23	600				
	110	12	3,400				
	120	11.5	3,400				
DC Coil	220/240	5	13,600	About 0.9 W	80% Max.	10% Min.	110%
	6	150	40				
	12	75	160				
	24	36.9	650				
	48	18.5	2,600				
110	10	11,000					

Contact Rating

ITEM	TYPE	
	1 Pole	2 Pole
Contact Capacity Resistive Load (Cos. φ = 1)	AC 240 V 15 A DC 24 V 15 A	AC 240 V 10 A DC 24 V 10 A
Inductive Load (Cos. φ = 0.4 L/R = 7 msec.)	DC 24 V 7 A DC 24 V 7 A	DC 24 V 5 A DC 24 V 5 A
Rated Carrying Current	15 A	10 A
Max. Allowable Voltage	DC 110 V / AC 240 V	DC 110 V / AC 240 V
Max. Allowable Current	15 A	10 A
Max. Allowable Power Force	1700 VA / 360 W	1100 VA / 240 W
Referential Min. Applicable Load	DC 10 V 10 mA	DC 10 V 10 mA
Contact Material	AgCdO	AgCdO

Ordering Information

SKN P LM 1C 120 VAC

Coil Voltage
See coil specifications
for available voltages.
Other voltages available
as special orders.

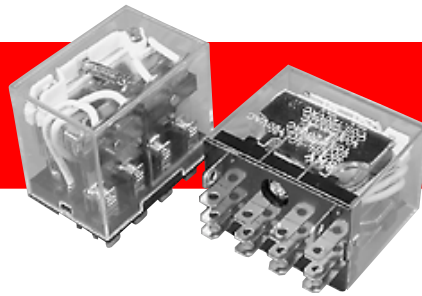
Contact Configuration
1C – SPDT 2C – DPDT

Blank – No Options
L – Neon Lamp
M – Manual Actuator
LM – Lamp and Actuator

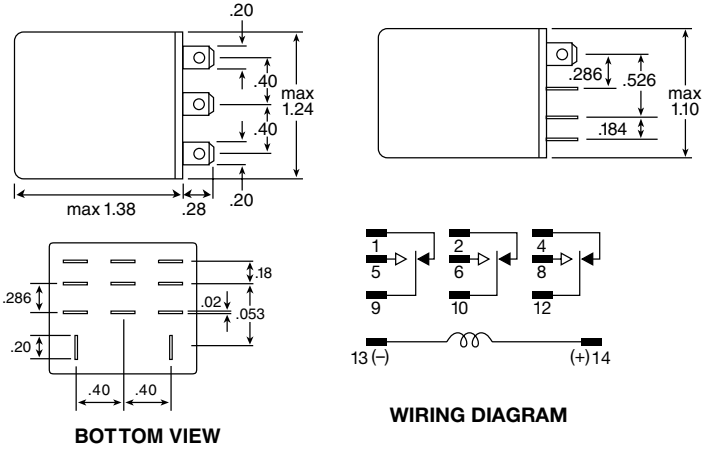
P – Plug In S – Stud Mount Side
T – Tab Mount S1 – Stud Mount Top
B – PC. Board Terminal

UL #E96834(M) (U.S. & Canada)

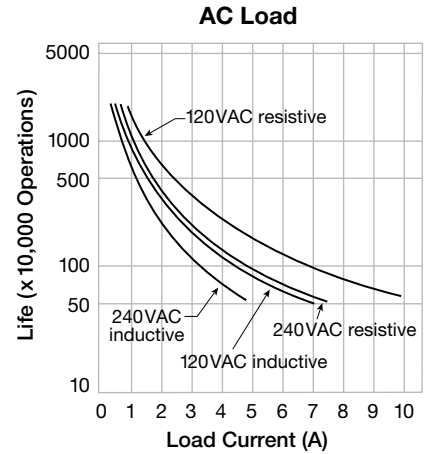
SKNP-3C,4C



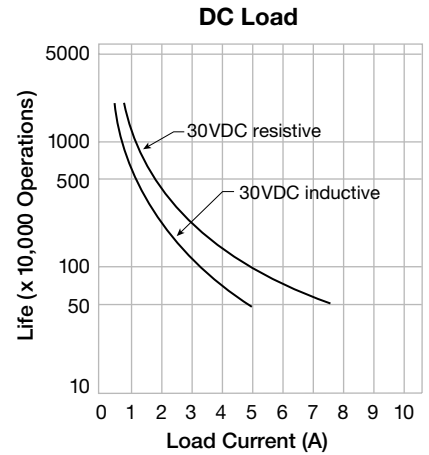
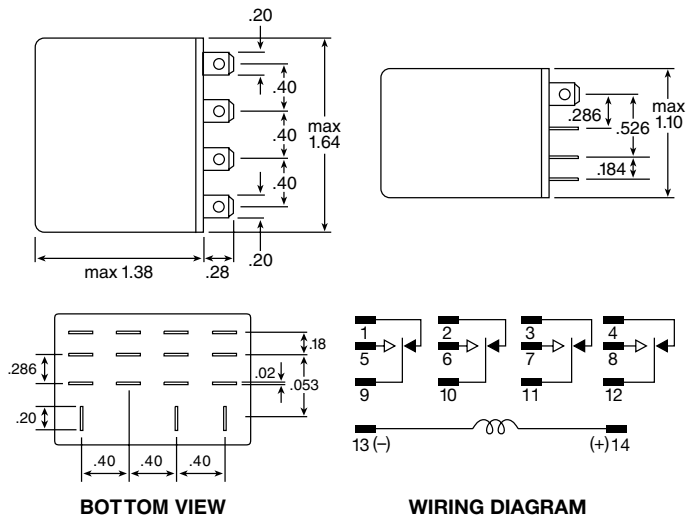
3PDT



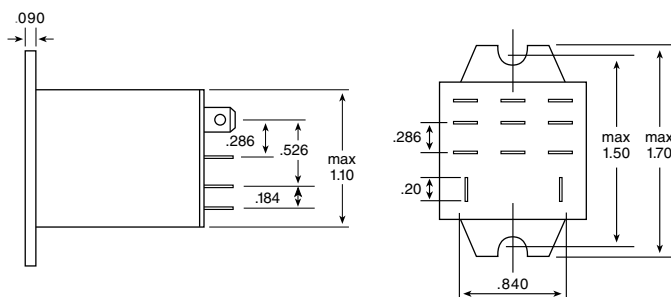
Reference Data



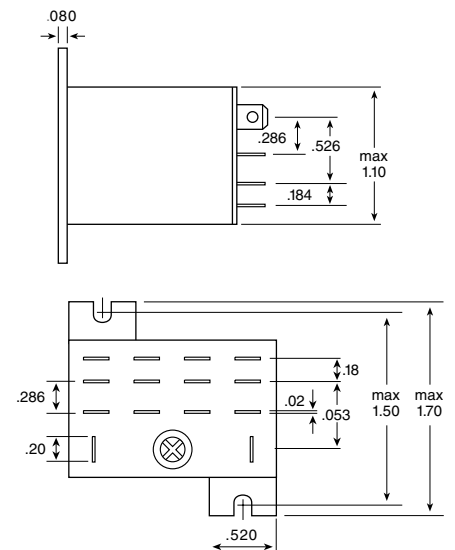
4PDT



SKNT-3C



SKNT-4C

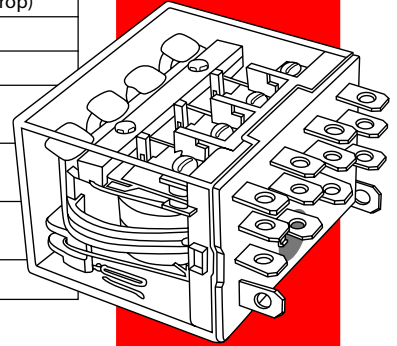


Performance (At Initial Value)

ITEM	TYPE	
	3 Pole / 4 Pole	
Contact Resistance	100 m Ω Max.	
Operate Time	25 msec Max.	
Release Time	25 msec Max.	
Dielectric Strength: Between Coil and Contact Between Contacts	AC 1500 V, 50/60 Hz (1 minute) AC 1000 V, 50/60 Hz (1 minute)	
Surge Resistance	3000 V (between coil and contact 1x40 μ sec.)	
Insulation Resistance	100 M Ω Min. (500 VDC)	
Max. ON/OFF Switching: Mechanically Electrically	240 operations/min. 30 operations/min.	
Operating Ambient Temperature	-25 °C to +55 °C (no water condensation and no water drop)	
Operating Humidity	45% to 85% R.H.	
Coil Temperature Rise	60 ° Max. (at rated coil voltage)	
Vibration: Endurance Error Operation	10 to 55 Hz Double Amplitude 1.0 mm 10 to 55 Hz Double Amplitude 1.0 mm	
Shock: Endurance Error Operation	100 G Min. 10 G Min.	
Life Expectancy: Mechanically Electrically	10,000,000 operations/min. (no load) 100,000 operations/min. (at rated load)	
Weight	About 35 grams	

SKNP- 3C,4C

Socket:
3 Pole - DSM-11F
4 Pole - DSM-14



Coil Specification (At 20°C)

TYPE	SKNP-3C				SKNP-4C				Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
	Nominal Voltage (VDC)	Nominal Current (mA) 60 Hz	Coil Resistance (Ω) ±10%	Power Consumption	Nominal Current (mA) 50 Hz	60 Hz	Coil Resistance (Ω) ±10%	Power Consumption			
AC Coil	6	183	115	About 1.6 to 2.0 VA (60 Hz)	386	330	5	About 1.95 to 2.5 VA (60 Hz)	85% Max.	30% Min.	of rated Voltage
	12	91	46		199	170	20				
	24	46	180		93.6	80	78				
	48	34	735		46.8	40	350				
	120	9.8	4,430		24.5	21	1,600				
240	4.2	12,950	13.1	11.2	6,700						
DC Coil	6	150	25.7	About 1.4 W	240	25	About 1.5 W	80% Max.	10% Min.	of Rated Voltage	
	12	75	107		120	100					
	24	36.9	410		69	350					
	48	18.5	1,700		30	1,600					
	110	10	8,500		15.9	6,900					

Contact Rating

ITEM	TYPE	
	3 Pole	4 Pole
Contact Capacity Resistive Load (Cos. φ = 1)	AC 240 V 10 A DC 24 V 10 A	AC 240 V 10 A DC 24 V 10 A
Inductive Load (Cos. φ = 0.4 L/R = 7 msec.)	DC 24 V 5 A DC 24 V 5 A	DC 24 V 5 A DC 24 V 5 A
Rated Carrying Current	10 A	10 A
Max. Allowable Voltage	DC 110 V / AC 240 V	DC 110 V / AC 240 V
Max. Allowable Current	10A	10 A
Max. Allowable Power Force	1700 VA / 360 W	1100 VA / 240 W
Referential Min. Applicable Load	DC 10 V 10 mA	DC 10 V 10 mA
Contact Material	AgCdO	AgCdO

Ordering Information

SKN P LM 3C 120 VAC

Coil Voltage
See coil specifications
for available voltages.
Other voltages available
as special orders.

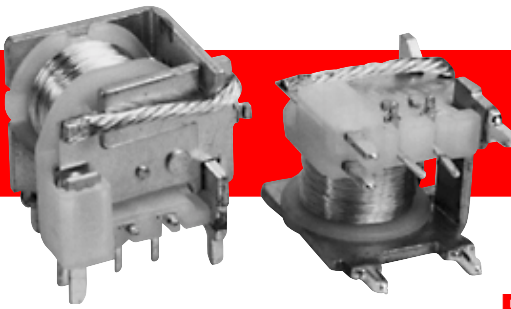
Contact Configuration
3C - 3PDT 4C - 4PDT

Blank - No Options
L - Neon Lamp
M - Manual Actuator
LM - Lamp and Actuator

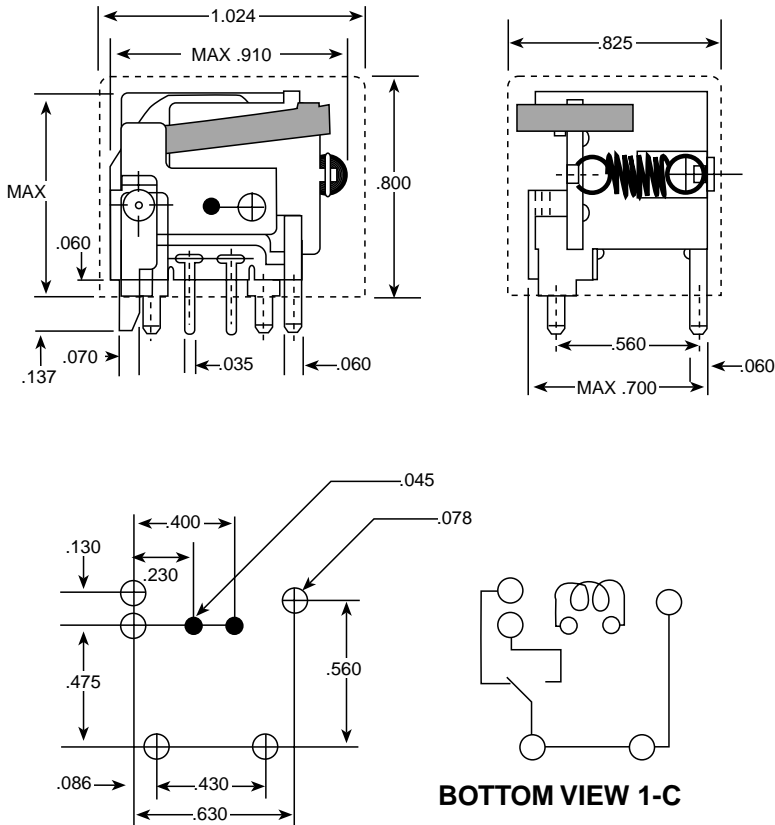
P - Plug In S - Stud Mount Side
T - Tab Mount S1 - Stud Mount Top
B - P.C. Board Terminal

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SKQ/SKQS

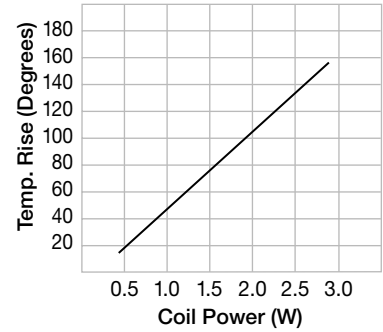


SKQ, SKQS

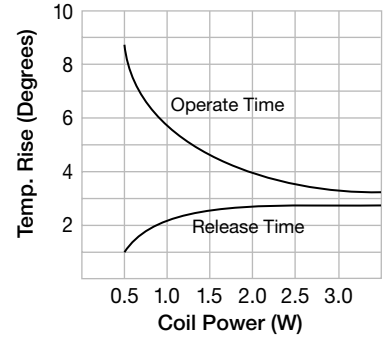


Reference Data

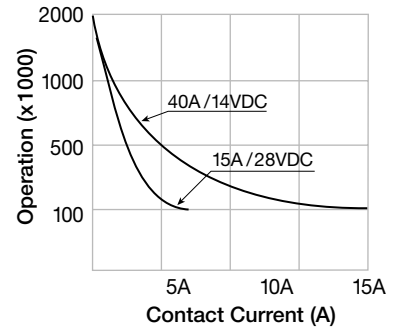
Coil Temperature Rise



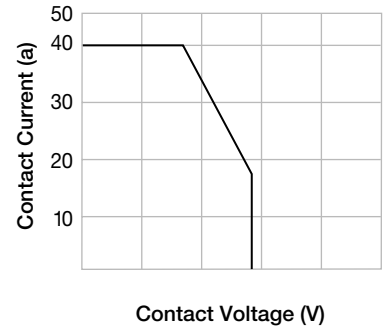
Operate Time



Electrical Service Life



Maximum Allowable Current



Performance (At Initial Value)

ITEM	TYPE
	SKQ/SKQS
Contact Resistance	100 mΩ Max.
Operate Time	10 msec Max.
Release Time	10 msec Max.
Dielectric Strength: Between Coil and Contact Between Contacts	750 VAC at 50 Hz for one minute 1200 VAC at 50 Hz for one minute
Insulation Resistance	100 MΩ Min. at 500 VDC
Max. ON/OFF Switching: Mechanically Electrically	30 operations/min. 300 operations/min.
Operating Ambient Temperature	-40°C to 85°C
Operating Humidity	95% 20°C
Coil Temperature Rise	UL Specs.
Life Expectancy: Mechanically Electrically	10 ⁷ operations/min. (no load) 10 ⁵ operations/min (at rated load)
Weight	18 grams

**SKQ
SKQS**

Coil Specification (At 20°C)

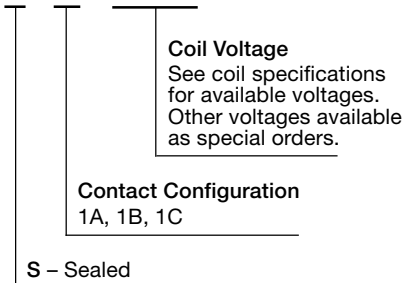
TYPE	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω) ±10%	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
SKQ/SKQS	6	315.7	19	About 1.89	70% Maximum	5% Minimum	160%
	12	133.3	90	About 1.59			
	24	66.2	362	About 1.59			

Contact Rating

ITEM	TYPE
	SKQ/SKQS
Contact Capacity Resistive Load (Cos. $\phi = 1$)	30 A
Rated Carrying Current	30 A
Contact Material	AgSnO ₂

Ordering Information

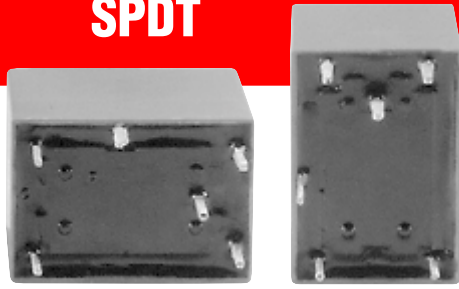
SKQ S 1C 12VDC



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SKV

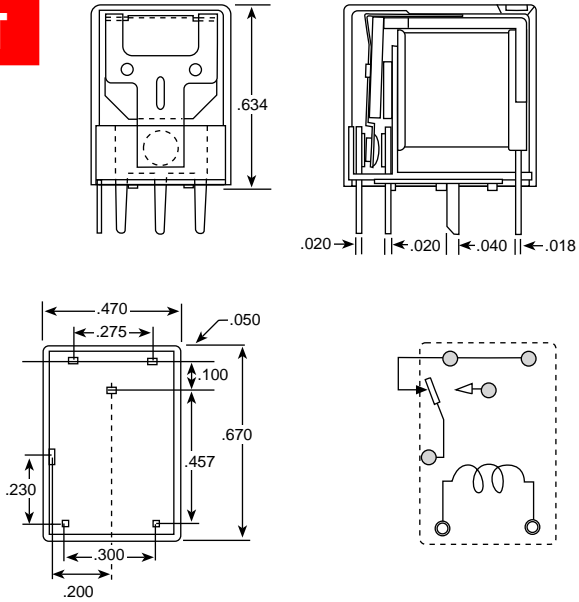
SPDT



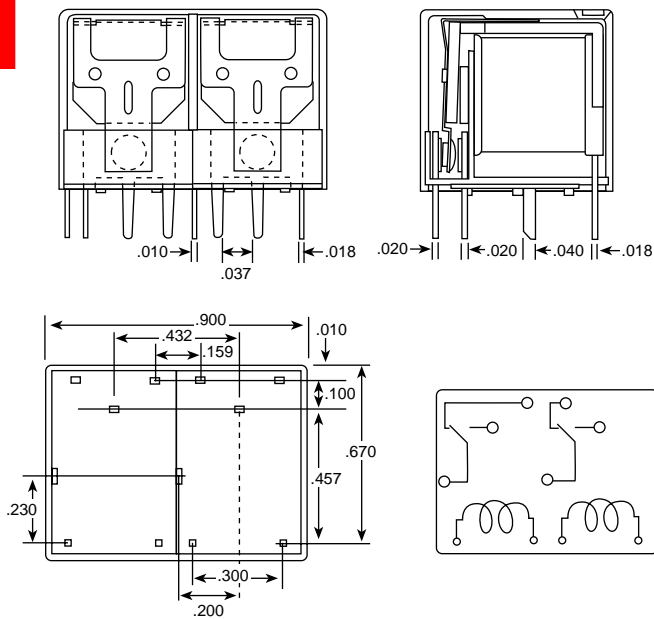
DPDT



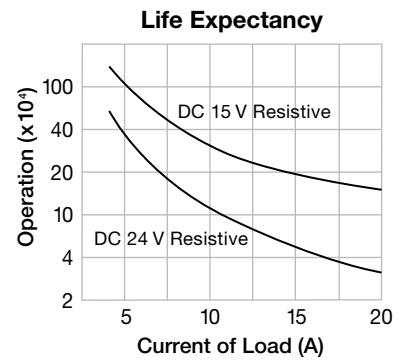
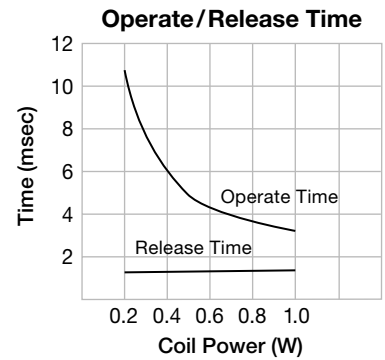
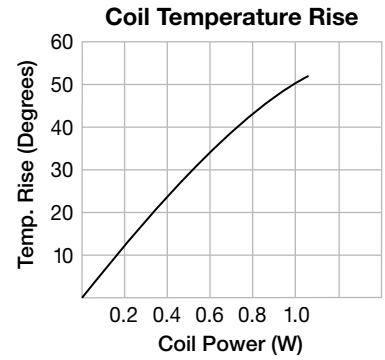
SPDT



DPDT



Reference Data



SKV

Performance (At Initial Value)

ITEM	TYPE
	1 Pole / 2 Pole
Contact Resistance	50 mΩ Max.
Operate Time	10 msec Max.
Release Time	5 msec Max.
Dielectric Strength: Between Coil and Contact Between Contacts	AC 500 V, 50/60 Hz (1 minute) AC 1000 V, 50/60 Hz (1 minute)
Surge Resistance	2000 V (between coil and contacts 1x40 μ sec.)
Insulation Resistance	100 MΩ Min. (500 VDC)
Max. ON/OFF Switching: Mechanically Electrically	300 operations/min. 30 operations/min.
Operating Ambient Temperature	-25°C to +80°C (no condensation)
Operating Humidity	45% to 85% R.H.
Coil Temperature Rise	60° Max. (at rated voltage)
Vibration: Endurance Error Operation	10 to 55 Hz Dual Amplitude 1.5 mm 10 to 55 Hz Dual Amplitude 1.5 mm
Shock: Endurance Error Operation	100 G Min. 10 G Min.
Life Expectancy: Mechanically Electrically	10,000,000 operations/min. 100,000 operations/min.
Weight	SPDT 7.6 grams / DPDT 15 grams

Coil Specification (At 20°C)

TYPE	Nominal Voltage (VDC)	Nominal Current (mA) 50 Hz	Coil Resistance (Ω) ±10%	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
DC Coil	5	91	55	0.45	75% Max.	5% Min.	150% but for short time carrying current
	6	75	80				
	9	50	180				
	12	38	320				
	18	25	720				
	24	19	1280				

Contact Rating

ITEM	TYPE
	1 Pole / 2 Pole
Contact Capacity Resistive Load (Cos. φ = 1)	DC 15 V 15 A N.O. DC 15 V 6 A N.O. DC 24 V 10 A N.O. DC 24 V 4 A N.O.
Inductive Load (Cos. φ = 0.4 L/R = 7 msec.)	DC 15 V 10 A N.C. DC 15 V 4 A N.C. DC 24 V 7 A N.C. DC 24 V 3 A N.C.
Rated Carrying Current	20 A
Max. Allowable Voltage	DC 30 V
Max. Allowable Current	20 A
Max. Allowable Power Force	240 W
Referential Min. Applicable Load	DC 50 V 10 mA
Contact Material	AgSnO2

Ordering Information

SKV 1C 12 VDC

Coil Voltage
See coil specifications
for available voltages.
Other voltages available
as special orders.

Contact Configuration
1C – SPDT
2C – DPDT

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C.S.A. #LR83798-1

