

Logic Control General Purpose Relays

Section 10

CR420

Plug-In Relays
Technical Data

CR420H Contact Data

Contact Ratings	SPDT (DM/DB):	30A @ 240VAC, 28VDC 1 HP @ 120VAC 1 1/2 HP @ 240VAC
	DPDT:	25A @ 240VAC, 28VDC 3/4 HP @ 120VAC 1 HP @ 240VAC
	3PDT:	20A @ 240VAC, 28VDC 3/4 HP @ 120VAC 1 HP @ 240VAC
Contact Material	Ag Alloy	
Maximum Contact Voltage	220VAC, 110VDC	
Carry Current	10A	
Electrical Life	100,000 operations	
Mechanical Life	10,000,000 operations	
Minimum Permissible Load	0.5A @ 1VDC	

CR420J Contact Data

Contact Ratings	13A @ 240VAC
Contact Material	Ag Alloy
Maximum Contact Voltage	24 VDC 24VAC 120 VAC
Carry Current	10A
Electrical Life	100,000 operations
Mechanical Life	10,000,000 operations
Minimum Permissible Load	0.5A @ 5VDC

CR420H Coil Data @ 20°C

AC Coil Power Consumption	2.3VA @ 50/60 Hz
DC Coil Power Consumption	1.5W
Coil Pick-Up Voltage	80% Nominal Maximum
AC Coil Drop-Out Voltage	30% Nominal Minimum
DC Coil Drop-Out Voltage	10% Nominal Minimum
Maximum Coil Voltage	110% Nominal Maximum

CR420J Coil Data @ 20°C

AC Coil Power Consumption	2.3VA @ 50/60 Hz
DC Coil Power Consumption	
Coil Pick-Up Voltage	AC 85% Nominal Maximum DC 75% Nominal Maximum
AC Coil Drop-Out Voltage	30% Nominal Minimum
DC Coil Drop-Out Voltage	10% Nominal Minimum
Maximum Coil Voltage	110% Nominal Maximum

CR420H General Technical Information

Contact Resistance	50m ohms Maximum
Operating Time	25mS Maximum
Release Time	25mS Maximum
Insulation Resistance	100m ohms Minimum @ 500 VDC
Electrical Switching Rate	30 Operations/Minute
Mechanical Switching Rate	240 Operations/Minute
Dielectric Strength Between Coil & Contacts	1500VAC for One Minute
Dielectric Strength Between Contacts	750VAC for One Minute
Mechanical Vibration	100G Minimum
Malfunction Vibration	10G Minimum
Operating Temperature	-10° to 60°C
Humidity	35-85% RH
Weight	Approx. 85 g

CR420J General Technical Information

Contact Resistance	100m ohms Maximum
Operating Time	25mS Maximum
Release Time	25mS Maximum
Insulation Resistance	1,000 Mohm
Electrical Switching Rate	30 Operations/Minute
Mechanical Switching Rate	240 Operations/Minute
Dielectric Strength Between Coil & Contacts	1500VAC for One Minute
Dielectric Strength Between Contacts	750VAC for One Minute
Mechanical Vibration	100G Minimum
Malfunction Vibration	20G Minimum
Operating Temperature	-25° to 60°C
Humidity	35-85% RH
Weight	Approx. 85 g



Logic Control General Purpose Relays

Section 10

CR420

Plug-In Relays
Technical Data

CR420K Contact Data

Contact Ratings	DPDT/3PDT: 10A res. @ 240VAC, 24VDC 7A Ind. (p.f.=0.4), 250VAC 1/2 HP @ 120VAC, 1/3 HP @ 240VAC
Contact Material	Ag Alloy
Maximum Contact Voltage	220VAC, 110VDC
Carry Current	10A
Electrical Life	100,000 operations
Mechanical Life	10,000,000 operations
Minimum Permissible Load	100mA @ 5VDC

CR420M Contact Data

Contact Ratings	4PDT: 5A @ 240VAC, 24VDC 1/10 HP @ 120/240VAC
Contact Material	Ag Alloy
Maximum Contact Voltage	220VAC, 110VDC
Carry Current	5A
Electrical Life	100,000 operations
Mechanical Life	10,000,000 operations
Minimum Permissible Load	SPDT/4PDT: 10mA @ 10VDC 4PDT (Ag with AU diffused): 1mA @ 10VDC

CR420K Coil Data @ 20°C

AC Coil Power Consumption	2.3VA @ 50/60 Hz
DC Coil Power Consumption	1.5W
Coil Pick-Up Voltage	80% Nominal Maximum
AC Coil Drop-Out Voltage	30% Nominal Minimum
DC Coil Drop-Out Voltage	10% Nominal Minimum
Maximum Coil Voltage	110% Nominal Maximum

CR420M Coil Data @ 20°C

AC Coil Power Consumption	1.1VA @ 50/60 Hz
DC Coil Power Consumption	0.9W
Coil Pick-Up Voltage	AC 85% Nominal Maximum DC 75% Nominal Maximum
AC Coil Drop-Out Voltage	30% Nominal Minimum
DC Coil Drop-Out Voltage	10% Nominal Minimum
Maximum Coil Voltage	110% Nominal Maximum

CR420K General Technical Information

Contact Resistance	100m ohms Maximum
Operating Time	25mS Maximum
Release Time	25mS Maximum
Insulation Resistance	100m ohms Minimum @ 500VDC
Electrical Switching Rate	30 Operations/Minute
Mechanical Switching Rate	240 Operations/Minute
Dielectric Strength Between Coil & Contacts	1500VAC @ 50/60 Hz
Dielectric Strength Between Contacts	1000VAC @ 50/60 Hz
Mechanical Vibration	100G Minimum
Malfunction Vibration	10G Minimum
Operating Temperature	-10° to 40°C
Humidity	35-85% RH
Weight	Approx. 85 g

CR420M General Technical Information

Contact Resistance	100m ohms Maximum
Operating Time	25mS Maximum
Release Time	25mS Maximum
Insulation Resistance	100m ohms Minimum @ 500VDC
Electrical Switching Rate	30 Operations/Minute
Mechanical Switching Rate	240 Operations/Minute
Dielectric Strength Between Coil & Contacts	1500VAC @ 50/60 Hz
Dielectric Strength Between Contacts	1000VAC @ 50/60 Hz
Mechanical Vibration	100G Minimum
Malfunction Vibration	10G Minimum
Operating Temperature	-25° to 70°C
Humidity	35-85% RH
Weight	Approx. 35 g



Product Number Selection Instructions: See page 10-2

Logic Control General Purpose Relays

CR420

Plug-In Relays
Technical Data

CR420N Contact Data

Contact Ratings	SPDT:	Resistive (p.f.=1.0) 15A@240VAC, 24VDC Inductive (p.f.=0.4) 7A@240VAC, 24VDC 1/3 HP @ 120VAC, 1/2 HP @ 240VAC
	DPDT/4PDT:	Resistive (p.f.=1.0) 10A@240VAC, 24VDC Inductive (p.f.=0.4) 5A@240VAC, 24VDC 1/3 HP @ 120VAC, 1/2 HP @ 240VAC
Contact Material	AgCdO	
Maximum Contact Voltage	240VAC, 110VDC	
Carry Current	10A	
Electrical Life	100,000 operations	
Mechanical Life	10,000,000 operations	
Minimum Permissible Load	10mA @ 5VDC	

CR420N Coil Data @ 20°C

AC Coil Power Consumption	1.1VA @ 50/60 Hz
DC Coil Power Consumption	0.9W
Coil Pick-Up Voltage	AC 85% Nominal Maximum DC 75% Nominal Maximum
AC Coil Drop-Out Voltage	30% Nominal Minimum
DC Coil Drop-Out Voltage	10% Nominal Minimum
Maximum Coil Voltage	110% Nominal Maximum

CR420N General Technical Information

Contact Resistance	100m ohms Maximum	
Operating Time	25mS Maximum	
Release Time	25mS Maximum	
Insulation Resistance	100m ohms Minimum @ 500VDC	
Electrical Switching Rate	30 Operations/Minute	
Mechanical Switching Rate	240 Operations/Minute	
Dielectric Strength Between Coil & Contacts	1500VAC for One Minute	
Dielectric Strength Between Contacts	1000VAC for One Minute	
Mechanical Vibration	100G Minimum	
Malfunction Vibration	10G Minimum	
Operating Temperature	-25° to 60°C	
Humidity	35-85% RH	
Weight	SPDT/DPDT:	Approx. 35 g
	4PDT:	Approx. 85 g

