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75VA

HCC Contactor Nomenclature

HCC - 1X Q 01 AA 100 C

SERIES:

HCC Hartland Controls Contactor

PACKAGING:

- Factory Bulk Pack
- Y Individual Box Pack

POLE FORM:

- | | | | |
|----|-----------------|----|--------------------------|
| 1X | 1PNO with shunt | 4X | 4PNO |
| 2X | 2PNO | 1N | 1PNO without shunt |
| 3X | 3PNO | 3E | 2 form X NO, 1 form Y NC |

COIL VOLTAGE:

- | | | | |
|---|-------------|---|---------|
| Q | 24 VAC | V | 277 VAC |
| T | 120 VAC | H | 480 VAC |
| U | 208/240 VAC | | |

CONTACT RATING:

- | | | | | | |
|----|--------|----|--------|----|--------|
| 00 | 20 FLA | 04 | 40 FLA | 07 | 75 FLA |
| 01 | 25 FLA | 05 | 50 FLA | 09 | 90 FLA |
| 02 | 30 FLA | 06 | 60 FLA | | |

TERMINATION:**FOR 1 & 2 POLE**

- AA #10-32 combo screw with quad QC (20-30 FLA)
- BB Same as AA with sems plate
- GG #14-4 lug with quad QC (40 FLA)

FOR 3 & 4 POLE

- CY #10-32 combo screw with dual QC (20-30 FLA)
- CG #14-4 lug with dual QC (40 FLA)
- CJ #14-2 lug with dual QC (50-60 FLA)
- *CJ #14-1 lug with dual QC (75-90 FLA)

CUSTOMER IDENTIFICATION:

(100 - 999) Optional customer specific number assigned by Hartland Controls to specify significant variation from the standard construction.

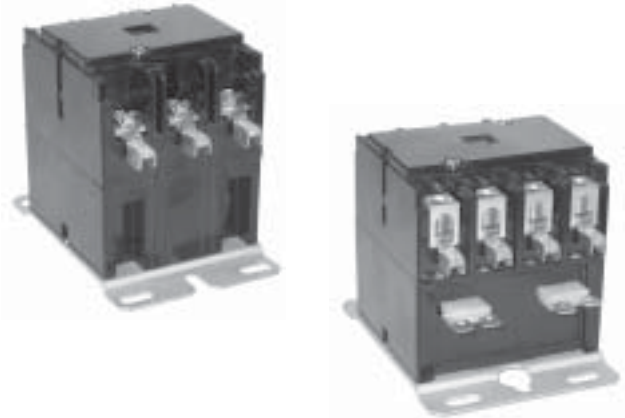
OPTIONAL COVER:

- C Indicates the addition of a cover for 1 & 2 Pole contactors up to 30 FLA

3 & 4 POLE

20 - 40 FLA

- ◆ 3 Pole NO
- ◆ 4 Pole NO
- ◆ Silver Cadmium Oxide Contacts
- ◆ UL 508 File No. E227250
Class NLDX2, NLDX8
- ◆ Semko/CE File No. EN 60947-4-1:2001
- ◆ CSA File No. 221260 (1456104)
Class 3211 04 / 3211 84
- ◆ Optional Auxiliary Switches located on page 1.



Partial Listing of Available 3 & 4 Pole Contactors

FLA Rating	Number of Poles	24V Coil	120V Coil	208/240V Coil	277V Coil
20 FLA	3	HCC-3XQ00CY	HCC-3XT00CY	HCC-3XU00CY	HCC-3XV00CY
25 FLA	3	HCC-3XQ01CY	HCC-3XT01CY	HCC-3XU01CY	HCC-3XV01CY
30 FLA	3	HCC-3XQ02CY	HCC-3XT02CY	HCC-3XU02CY	HCC-3XV02CY
	4	HCC-4XQ02CY	HCC-4XT02CY	HCC-4XU02CY	HCC-4XV02CY
40 FLA	3	HCC-3XQ04CG	HCC-3XT04CG	HCC-3XU04CG	HCC-3XV04CG
	4	HCC-4XQ04CG	HCC-4XT04CG	HCC-4XU04CG	HCC-4XV04CG

INITIAL DIELECTRIC STRENGTH	
Between Contacts & Coils: 2,200 VAC	
Between Poles: 2,200 VAC	
Between Open Contacts: 2,200 VAC	
ARC COVER	
Standard	
INSULATION SYSTEM	
130°C Class B	
TEMPERATURE RANGE	
-40°C to +65°C	
-40°F to +150°F	
UNIT WEIGHT	
3 Pole	1 lb
4 Pole	1.25 lbs

POWER POLE TERMINATIONS	
#10-32 screw or box lug	
WIRE SIZE	
#10-32 screw	16-8*
Box lug	14-4
*must use ring terminal	
RECOMMENDED TIGHTENING TORQUE	
#10-32 screw	22 in. lbs
Box lug	40 in. lbs
QUICK CONNECTS	
Coil terminals	Dual: .250" QC or #6-32 screw/.250" QC
Power terminals	Dual .250" QC

Coil Rating

3 Pole Contactors

4 Pole Contactors

Nominal Coil Voltage	24	120	208-240	277	24	120	208/240	277
Nominal Coil Resistance Ohms	7	180	720	900	6	150	600	750
Maximum Pick Up Voltage	18	88	177	220	18	88	177	220
Minimum Drop Out Voltage	6-15	20-70	40-140	50-185	6-15	20-70	40-140	65-185
Nominal Inrush VA @ 50 Hz	65	65	65	65	62	62	62	62
Nominal Inrush VA @ 60 Hz	60	60	60	60	59	59	59	59
Nominal Sealed VA @ 50 Hz	7.5	7.5	7.5	7.5	9	9	9	9
Nominal Sealed VA @ 60 Hz	6	6	6	6	7	7	6	7
Maximum Coil Voltage	30	132	264	300	30	132	264	300



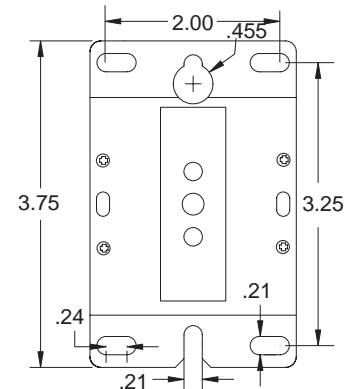
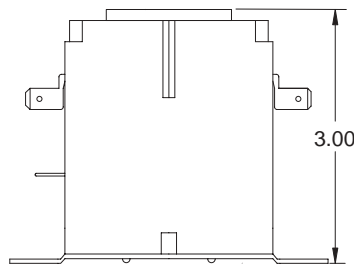
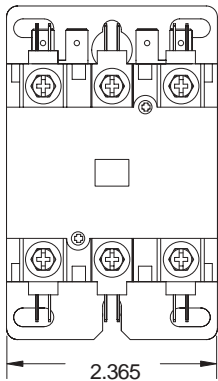
20 - 40 FLA

3 & 4 POLE

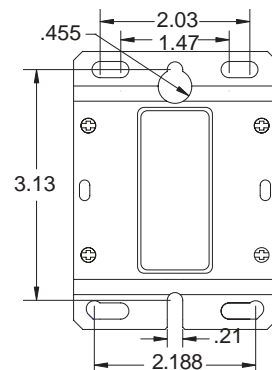
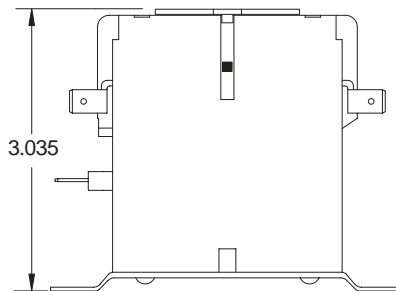
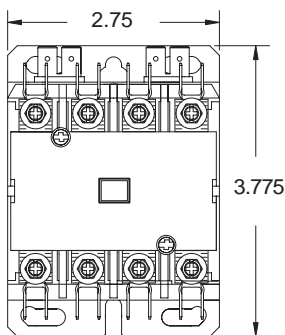
Electrical Rating

Full Load Amps	Resistive Amps @ 600 VAC	Locked Rotor Amps @ 240/277 VAC	Locked Rotor Amps @ 480 VAC	Locked Rotor Amps @ 600 VAC	Maximum Horsepower		
					Voltage	Single Phase	Three Phase
3 Pole Contactors							
20	30	120	100	80	120	1.5	-
					240/277	3	7.5
					480/600	-	7.5
25	35	150	125	100	120	2	-
					240/277	5	10
					480	-	15
30	40	180	150	120	600	-	20
					120	2	-
					240/277	5	10
40	50	240	200	160	480	-	15
					600	-	20
					120	3	-
4 Pole Contactors							
30	40	180	150	120	120	2	-
					240/277	5	10
					480	-	15
40	50	240	200	160	120	3	-
					240/277	7.5	10
					480	-	20

3 Pole Dimensions (Inches)



4 Pole Dimensions (Inches)



HCR-5 SERIES

SPNO & SPDT General Purpose
Switching Relay



- ◆ SPNO, SPDT, 1 NO & 1 NC switching configurations
- ◆ Class B insulation system
- ◆ .250" QC terminals
- ◆ Multi-positional mounting
- ◆ UL 508 File No. E227250
Class NLDX2, DNLDX8
- ◆ Double make contact configuration

Partial Listing of Available HCR-5 Relays

Coil Voltage:	24 VAC	120 VAC	208/240 VAC
SPNO	HCR-51XQ1AB	HCR-51XT1AB	HCR-51XU1AB
SPDT	HCR-51CQ1AB	HCR-51CT1AB	HCR-51CU1AB
1NO & 1NC	HCR-51ZQ1AB	HCR-51ZT1AB	HCR-51ZU1AB

HCR-5 Nomenclature

HCR	-	5	1X	Q	1	AB	000
Series	Packaging	Relay Type	Pole Form	Coil Voltage	Contact Rating	Mounting	Customer Identification
Hartland Controls Relay	- Factory Bulk Box Y Individual Pack Box	5	1X SPNO 1C SPDT 1Z 1 NO & 1 NC	Q 24 VAC T 120 VAC U 208/240 VAC V 277 VAC	1 Power Rated 2 Pilot Duty	AB 2.156 mfg. ctr. AC 2.156 mfg. ctr.	000-999 Optional customer number assigned by Hartland Controls

CONTACT DATA

Arrangement	SPNO, SPDT, 1NO & 1NC
Contact Material	Silver Cadmium Oxide Alloy
Power Rating	12 FLA 60 LRA 18 Amps Resistive @ 125 VAC 8 FLA 48 LRA 18 Amps Resistive @ 240/277 AC
SPST-NO only	25 Amps Resistive @ 277 VAC
Pilot Duty Rating	3 Amps, 277 VAC 125 VA @ 125 VAC 250 VA @ 250 VAC 277 VA @ 277 VAC

SPECIFICATIONS

Temperature Range	-55 to +125°C
Unit Weight	.19 lb
Power Pole Terminations	.250" QC
Coil Termination	.250" QC
Mechanical Life Expectancy	1 million operations
Electrical Life Expectancy	250,000 operations - resistive 100,000 operations - inductive

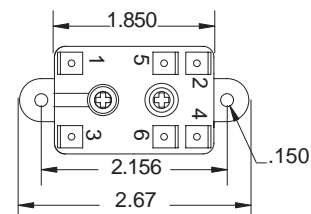
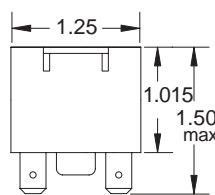
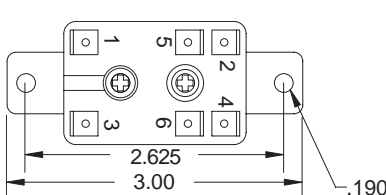
COIL

Nominal Coil Power	DC	2.4 W
	AC	4.0 VA

Coil Voltage / Relay Performance

Coil ID Letter	Nominal Coil Voltage VAC	Pick Up Voltage VAC	Drop Out Voltage VAC	Maximum Coil Voltage VAC	Nominal Coil Resistance Ohms	Sealed VA (maximum)	Inrush VA
Q	24	20.4	4.8	26.4	77	4	5
T	120	102	24	132	1,800	4	5
U	208/240	176	48	264	7,000	4	5

Dimensions (Inches)





- ◆ SPNO, SPDT, DPNO & DPDT switching configurations
- ◆ Class B insulation system
- ◆ .250" QC terminals
- ◆ Multi-positional mounting
- ◆ UL 508 File NO. E227250
Class NLDX2, NLDX8

Partial Listing of Available HCR-6 Relays

Coil Voltage:	24 VAC	120 VAC	208/240 VAC
SPNO	HCR-61AQ1AA	HCR-61AT1AA	HCR-61AU1AA
SPDT	HCR-61CQ1AA	HCR-61CT1AA	HCR-61CU1AA
DPNO	HCR-62AQ1AA	HCR-62AT1AA	HCR-62AU1AA
DPDT	HCR-62CQ1AA	HCR-62CT1AA	HCR-62CU1AA

HCR-6 Nomenclature

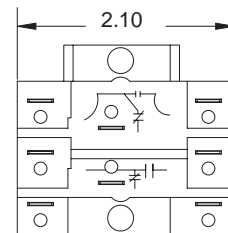
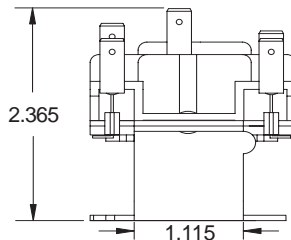
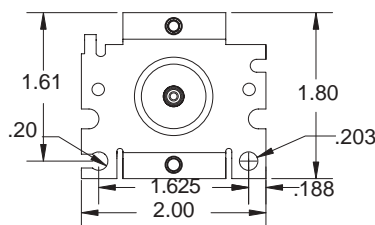
HCR	-	6	2A	Q	1	AA	000
Series	Packaging	Relay Type	Pole Form	Coil Voltage	Contact Rating	Mounting	Customer Identification
Hartland Controls Relay	- Factory Bulk Box Y Individual Pack Box	6	2A DPNO 2C DPDT 1C SPDT 1A SPNO	Q 24 VAC T 120 VAC U 208/240 VAC V 277 VAC	1 Power Rated 2 Pilot Duty	AA - Bracket mounting with .250" QC	000-999 Optional customer number assigned by Hartland Controls

CONTACT DATA		SPECIFICATIONS	
Arrangement	SPNO, SPNC, SPDT, DPNO, DPDT	Temperature Range	-55 to +125°C
Contact Material	Silver Cadmium Oxide Alloy	Unit Weight	.38 lb
Power Rating	3/4 HP 125/250 VAC 12 FLA 60 LRA 15A Res. @ 125 VAC 6 FLA 35 LRA 15A Res. @ 250/277 VAC 3 FLA 18 LRA 12.5A Res. @ 480 VAC 3 FLA 14 LRA 600VAC	Power Pole Terminations	.250" QC
Pilot Duty Rating	1/10 HP 125/250 VAC 125 VA @ 125/250/480 VAC 3 Amp 277 VAC	Coil Termination	.250" QC
		Mechanical Life Expectancy	1 million operations
		Electrical Life Expectancy	250,000 operations - resistive 100,000 operations - inductive
		COIL	
		Nominal Coil Power	AC 9.5 VA

Coil Voltage / Relay Performance

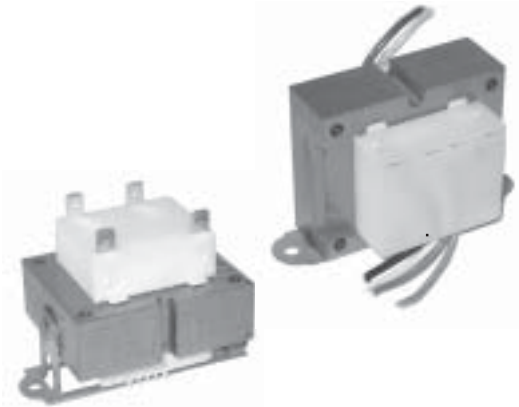
Coil ID Letter	Nominal Coil Voltage VAC	Pick Up Voltage VAC	Drop Out Voltage VAC	Maximum Coil Voltage VAC	Nominal Coil Resistance Ohms	Sealed VA (maximum)	Inrush VA
Q	24	20.4	4.8	26.4	15	9.5	21.5
T	120	102	24	132	400	9.5	21.5
U	208/240	176	48	264	1,600	9.5	21.5

Dimensions (Inches)



TRANSFORMERS

- ◆ UL/CUL recognized - File No. E223730, Guide No. XOKV2
- ◆ Non-inherently limited
- ◆ Secondary fusing required
- ◆ Consult Hartland Controls for specific requirements not shown in catalog.



WIRE SIZE

All leads are 18 AWG stranded 2/64" insulation thickness.
Standard parts have 12" total length, with 1/2" strip.

QUICK CONNECT SIZE

Standard male quick connect terminals are .250 x .032.

FREQUENCY

50/60 HZ

INSULATION SYSTEM

130°C Class B

UNIT WEIGHT

75 VA 2.50 lbs

Partial Listing of Available 75 VA Transformers

Primary - Secondary Voltage	75 VA Wire Lead 3.2A Link Fuse	75 VA Quick Connect 3.2A Link Fuse	75 VA Wire Lead 3.75 Circuit Breaker	75 VA Quick Connect 3.75 Circuit Breaker
120 - 24	HCT-01J4AF02	HCT-01J4BB07	HCT-01J2AF02	HCT-01J2BB07
240 - 24	HCT-02J4AF02	HCT-02J4BB07	HCT-02J2AF02	HCT-02J2BB07
277 - 24	HCT-03J4AF02	HCT-03J4BB07	HCT-03J2AF02	HCT-03J2BB07
480 - 24	HCT-04J4AF02	HCT-04J4BB07	HCT-04J2AF02	HCT-04J2BB07
120/208/240 - 24	HCT-05H4AF02	HCT-05H4BB07	HCT-05H2AF02	HCT-05H2BB07
120/208/240/480 - 24	HCT-08H4AF02	HCT-08H4BB07	HCT-08H2AF02	HCT-08H2BB07
208/240 - 24	HCT-09J4AF02	HCT-09J4BB07	HCT-09J2AF02	HCT-09J2BB07
380/415 - 24	HCT-51J4AF02	HCT-51J4BB07	HCT-51J2AF02	HCT-51J2BB07
575 - 24	HCT-78J4AF02	HCT-78J4BB07	HCT-78J2AF02	HCT-78J2BB07

Primary Lead Features

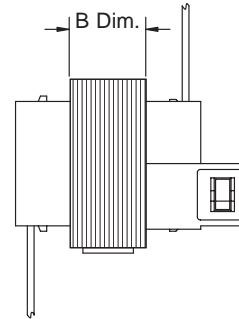
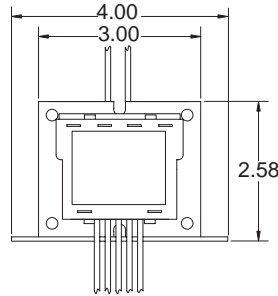
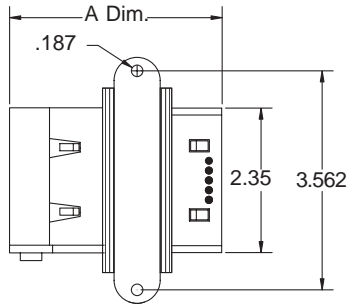
Voltage	Common	120	208	240	277	480	575
Color	Black	White	Red	Orange	Brown	Black/Red	Grey
Lead Length	12"	12"	12"	12"	12"	12"	12"
Strip Length	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"

Secondary Lead Features

Voltage	Common	24
Color	Blue	Yellow
Lead Length	12"	12"
Strip Length	1/2"	1/2"

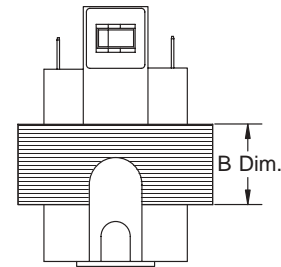
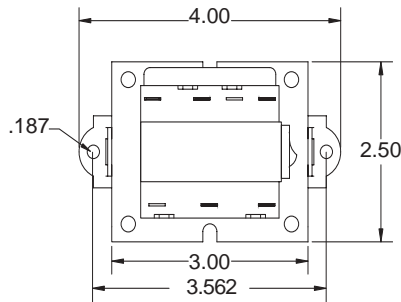
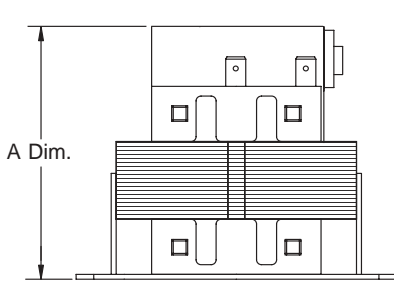


75 VA Wire Lead Models (Inches)



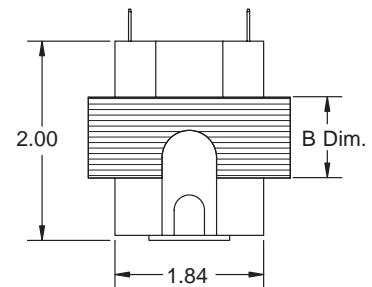
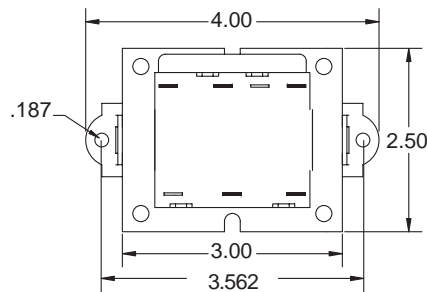
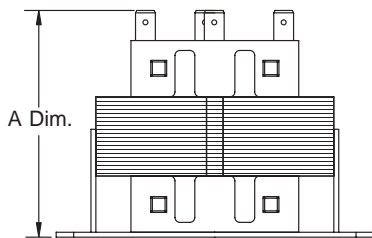
	J Series	H Series
A Dim.	3.22	3.37
B Dim.	1.00	1.15

75 VA Quick Connect Models (Inches)



	J Series	H Series
A Dim.	3.30	3.45
B Dim.	1.00	1.15

40 VA & 50 VA Quick Connect Models (Inches)



	J Series	H Series
A Dim.	2.98	3.13
B Dim.	1.00	1.15