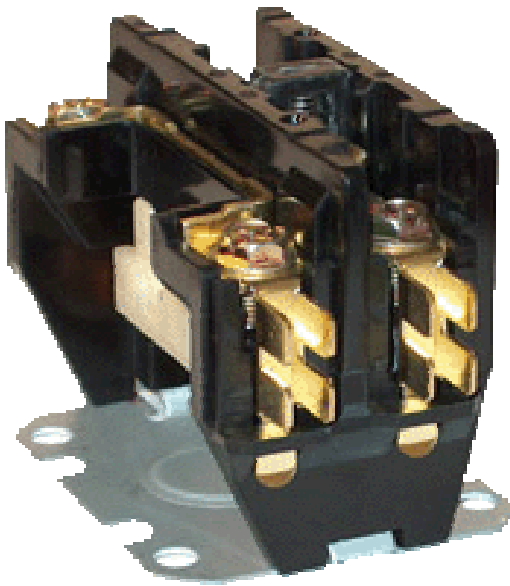


HLC Y Definite Purpose Contactors



General:

Name of Product: 2 Pole Definite Purpose Contactor

Model Number: HLCY-2X (one pole NO w/shunt)

Agency Approvals: UL 508 File # (Class NLDX2, NLDX8) CE EN 60947-4-1
(ACI-50A/Ac3-40A)

Contact Data:

Arrangements: 2 Pole N.O. (form X) with or without shunt

Structure: Double Make Contacts

Materials: Silver Cadmium Oxide (13% all FLA rated)

Maximum Load Rating: See contact rating chart

Coil Data:

Coil Voltage: 50/60 HZ. See coil rating chart

Nominal Resistance: See coil rating chart (all readings taken at room ambient conditions)

Nominal Coil Power: 6.5VA@60HZ. 8VA@50HZ. (sealed armature nominal voltage)

Nominal Inrush Power: 30 VA @ 60HZ. 33 VA @ 50HZ. (Blocked armature nominal voltage)

Coil Temperature Rise: 65° C Maximum

Class of Insulation: 130° C (Class B)

Operation Data:

Must Operate Voltage: 85% of nominal coil voltage or less (24 vac. = 75% or less)

Must Release Voltage: 10% to 60% of operate voltage

Initial Operate Time: 20 ms typical

Initial Release Time: 10ms. Typical

Bounce Time: 0 to 10 ms. Typical

Environmental Data:

Temperature Range: Storage & Operating: -40°C to +65°C

Flammability: UL 94-VO (Base and Actuator)

Corrosion Resistance: Contactors are to remain operable after exposure to the conditions of MIL-R-5757 relay specification or 100 Hrs. 5% salt fog as stated in MIL-R- 19523

Initial Dielectric Strength: (Leakage Current of 5 mA for 1 minute)

Between Poles: 2,200 VAC (shunt assumed to be a pole)

Between Open Contacts: 2,200 VAC (does not include shunt)

Note: These conditions exceed the UL requirement. They are intended to support the HVAC application as seen in field testing. All test conditions apply after successful completion of life, overload, or mechanical testing

Mechanical Data:

Power Pole Termination	Wire Size	Tightening Torque
#10-32 Screw (w/,or w/o sems-plate)	16-8*AWG	22 Ibf. - in. (2.49 N - m)
Box Lug	14-4AWG	40 Ibf- in. (4.52 N-m)
• must use a ring terminal for #8 AWG wire		
Coil Termination:	Dual 0.250" Quick Connects (6.35 mm)	
Unit Weight w/o optional cover:	10 oz. (283 gm.)	

Life Expectancy:

2 pole Definite Purpose Contactor HLCY-2X series.

The Life experienced in individual applications will depend upon duty cycle, load, and environmental conditions. Results stated in this summary are under conditions of UL 508, UL 1995, and ARI 780. This data is intended as a guide and reflects actual test results when mounted on a vertical panel with terminals vertical. (WMV)

- 1) Mechanical Life:
Design requirement ARI 780 = 500,000 operations
Minimum Test Requirement = 1,000,000 operations at 60 operations per minute 50% duty cycle,
150°F and 1 10% of nominal coil voltage.
- 2) Electrical Life Test Results:
(Results with file # are UL, other results reflect HL performance testing)

40 and 50 RLA (resistive load)

250,000 operations make, carry and break 100 % pf. 600 VAC

30 FLA rated

200,000 operations make LRA 40 to 50% pf., break 125% FLA 75 to 80% pf. @ 240 VAC
250,000 operations make, carry, break 75 to 80% pf. @ 240 VAC
250,000 operations make, carry, break at 75 to 80% pf. @ 600 VAC

40 FLA rated

100,000 operations make LRA 40 to 50% pf., break 125% FLA 75 to 80% pf. @ 240 VAC
250,000 operations make, carry, break 75 to 80% pf. @ 240V AC
30,000 operations make, carry, break 75 to 80% pf. @ 600 VAC

Coil Rating Chart:

Coil	Coil	Nominal	Maximum	Minimum	Inrush		Sealed		Max
Code	Coil Voltage	Coil Resistance Ohms	Operate Voltage	Drop Out Voltage	50 HZ VA	60 HZ VA	50 HZ VA	60 HZ VA	Coil
Q	24	18	18	6 - 15	31	28	6	5	30
T	120	420	88	20 - 70	31	28	6	5	132
U	208/240	1.800	177	40 - 140	35	32	7	6	264
V	277	2,500	221	50 - 165	31	28	6	5	300

- All coils are rated class "B" insulation for maximum temp of 130° C
- Maximum coil temp rise is 65° C
- Maximum operate voltage is the voltage at which the contacts are close and the armature sealed.

- **Maximum coil voltage is nominal plus 10% unless indicated.**
- **Maximum operate voltage is 85% of nominal unless indicated. 24 vac HVAC applications require 75%.**

Contact	Resistive	FLA	LRA @ 240 VAC	LRA @ 277 VAC	LRA @ 480 VAC	LRA @ 600 VAC
Rating Code	Amps	Amps	Amps	Amps	Amps	Amps
00	30 @ 600 VAC	20	120 (x,*)	120 (x)	100 (x,*)	80 (x,*)
01	35 @ 600 VAC	25	150 (x,*)	150 (x)	125 (x,*)	100 (x,*)
02	40 @ 600 VAC	30	180 (x,*)	180 (x)	150 (x,*)	12 (x,*)
04	50 @ 600 VAC	40	200 (x)	200 (x)	180 (x)	120 (x)