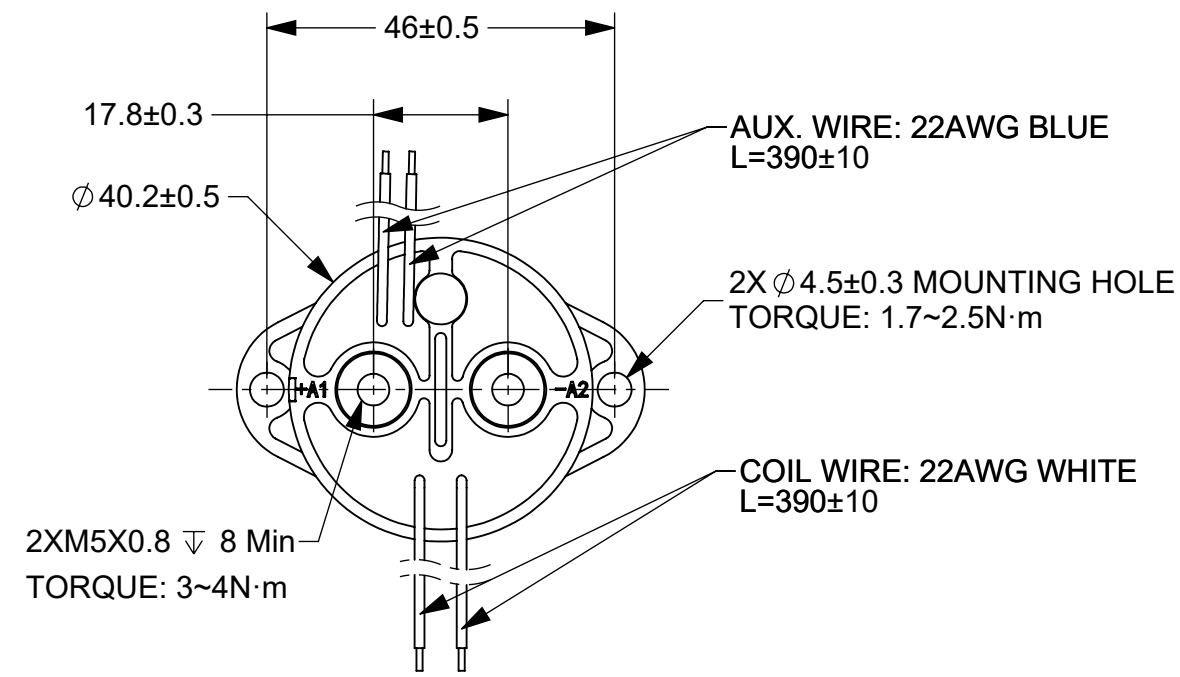


REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	PCO: 5301381, INITIAL RELEASE	08/15/2025	D. ZHANG



ELECTRICAL DIAGRAM

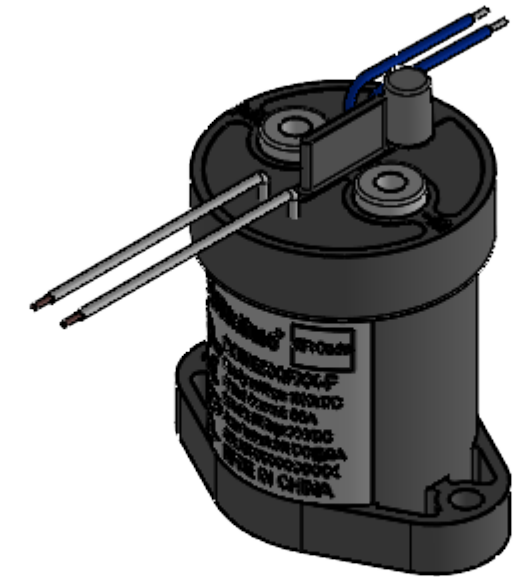
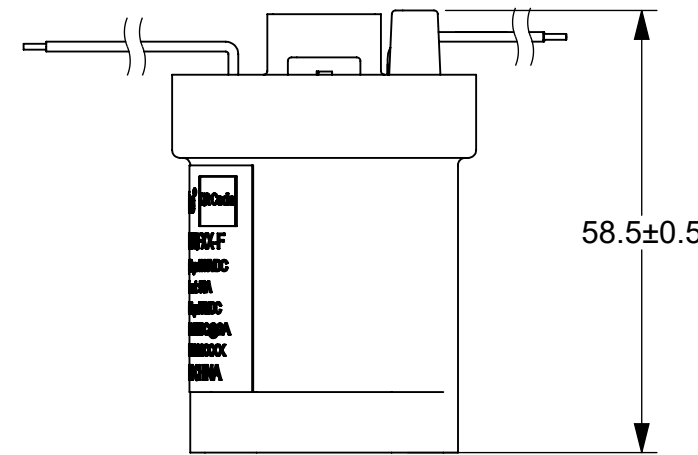
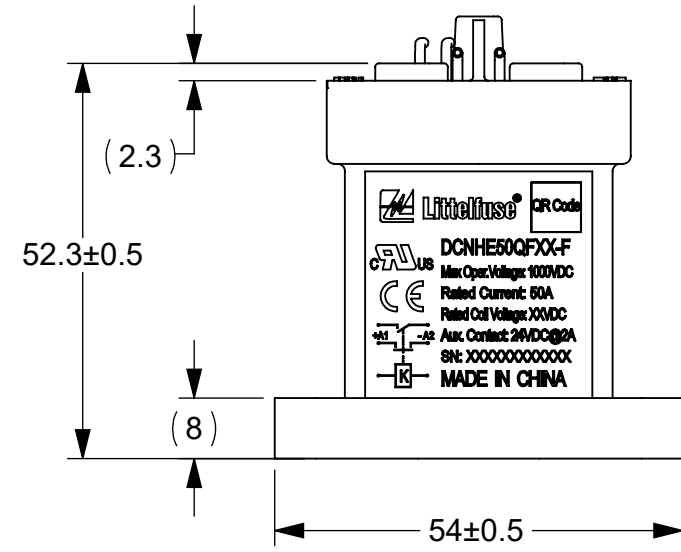
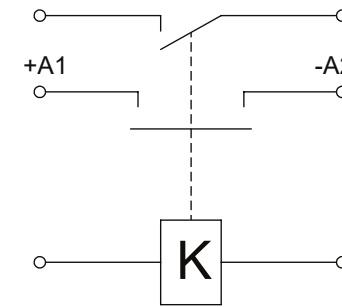


TABLE 1: ENGINEERING DESIGN DATA

ITEM	DATA		
	DCNHE50QF12-F	DCNHE50QF24-F	DCNHE50QF48-F
RATED COIL VOLTAGE	12 VDC	24 VDC	48 VDC
HOLDING CURRENT(25°C)	MAX 0.6A	MAX 0.3A	MAX 0.16A
HOLDING POWER(25°C)	5W ~ 7W	5W ~ 7W	5W ~ 7W
OPERATING VOLTAGE IN COLD STATE AT 25°C	OPERATE	MAX 9 VDC	MAX 18 VDC
	RELEASE	MIN 1 VDC	MIN 2 VDC
OPERATE TIME	MAX 30ms		
RELEASE TIME	MAX 10ms		
MAIN CONTACT VOLTAGE DROP	60mV@50A		
DIELECTRIC STRENGTH (LEAKAGE CURRENT ≤1 mA)	BETWEEN THE CONTACT AND CONTACT: 4000V AC, 50Hz/60Hz, 1min. BETWEEN THE CONTACT AND COIL AND AUX. CONTACT: 2200V AC, 50Hz/60Hz, 1min.		
INSULATION RESISTANCE	100MQ@1000 VDC		
CONTACT VOLTAGE RANGE	12 VDC~1000 VDC		
RATED CONTACT CURRENT	50A		
OPERATING TEMP	-40°C ~ +85°C		
MAX. BREAKING CURRENT	1000A@320VDC, 1CYCLE		
ELECTRICAL LIFE (RESISTIVE LOAD)	6000 CYCLES (50A @ 450V DC); 1000 CYCLES (50A @ 750V DC); 1000 CYCLES (20A @ 1000V DC)		
MECHANICAL LIFE	300,000 CYCLES		

NOTES:

- ALL SIZES ARE FOR REFERENCE ONLY.
- MATERIALS AND FINISHED:
 - HOUSING: THERMOPLASTIC, UL94V-0.
 - CONTACTS: COPPER ALLOY.
- PRODUCT TECHNICAL PARAMETERS: SEE TABLE 1.
- MAIN CONTACT ARRANGEMENT: SPST-NO, WITH POLAR.
- AUXILIARY CONTACT ARRANGEMENT: SPST-NO.
- CERTIFICATIONS: UL, CE.
- RoHS AND REACH COMPLIANT.
- APPROX WEIGHT 200g.

DIMENSIONS ARE SHOWN IN MILLIMETERS. DIMENSIONS AND TOLERANCES ARE DEFINED ACCORDING TO ANSI/ASME Y14.5-1994.	
●	FTI/ FUNCTION CRITICAL CHARACTERISTICS
<S>	SAFETY/ COMPLIANCE CRITICAL CHARACTERISTICS SYMBOL
CPK	DENOTES CPK DIMENSIONS MINIMUM CPK VALUE
(ST)	DENOTES A CHARACTERISTIC THAT PROVIDES AN INDICATION OF PROCESS PERFORMANCE PROCEDURE FOR MEASUREMENT AND TRACKING TO BE DEFINED IN LITTELFUSE INSPECTION INSTRUCTIONS
CP	DENOTES CP DIMENSIONS. MINIMUM CP VALUE MUST BE WITHIN THE DIMENSIONAL LIMITATIONS SHOWN ON DRAWING AND INITIALLY LOCATED TO ALLOW FOR MAXIMUM TOOL LIFE
PER CHNFPD20-008 PROCEDURE	
NAME	DATE
DRAWN MJ. DAI	08/16/2025
CHECKED D. ZHANG	08/16/2025
Littelfuse Expertise Applied Answers Delivered	
FORM NO. CVP-PE40-005 REV B	TITLE
THIRD ANGLE PROJECTION	DC CONTACTOR 50A
SIZE C	DWG. NO. OL-DCNHE50QFX-F.CHART
DO NOT SCALE DRAWING	SCALE 1:1
	REV. A
	SHEET 1 OF 1