

REC35 SERIES

High Voltage Contactors

400A CONTINUOUS DUTY

900V SYSTEM VOLTAGE



FEATURES

SPST Normally Open High Voltage Contactors

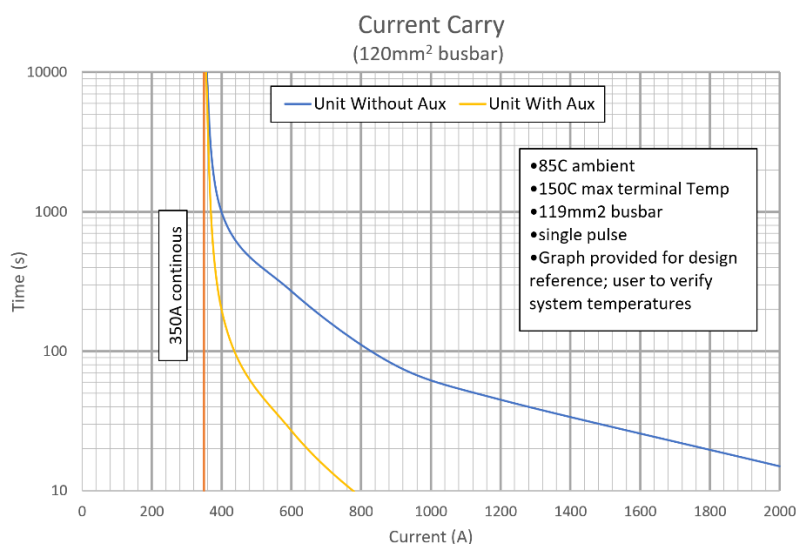
- Hermetic seal with gas fill
- Optional auxiliary contacts – for main position feedback
- Integrated coil economizer to reduce coil holding power
- Meets RoHS 2011/65/EU
- CE certified
- IEC60947-4-1 compliant



PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC		MEASURE
Contact Arrangement		Form X, SPST NO
Max Switching Voltage		900 VDC
Dielectric Withstand Voltage Contacts to Coil		2,200 VAC, 1 minute
Dielectric Withstand Voltage Across Open Contacts		4,000 VDC, 1 minute
Continuous Current (127mm ² conductor)		400A
Overload Current	1 minute	1,000A
	5 Minutes	550A
Make and Break		See table
Max Short Circuit Current -1 second		3,000 A
Min Insulation Resistance		1,000 Mohm @ 1,000V
Contact Voltage Drop (Max)		125mV @ 250A
Operate Time (Max, incl bounce)		25ms
Release Time (Max)		12ms
Shock - Functional, 1/2 Sine, 11ms		20G
Shock – Destructive, 1/2 Sine, 11ms		50G
Operating Temperature		-40°C to 85°C
Ingress Protection		Exceeds IP69, (Hermetically sealed)
Mechanical life		500,000
AUXILIARY CONTACTS		MEASURE
Contact Arrangement		SPST
Continuous Current		2A
Minimum Current		1mA @ 12V
COIL		J, K, L coil options M, N coil options
Nominal Voltage		9-36 VDC 32-95V
Pick-up Voltage (Max)		9 VDC 32 VDC
Drop-out Voltage (Min)		6 VDC 18 VDC
Inrush Current (Max)		3.8A 1.3A
Holding Current		0.13A @ 12 VDC 0.03A @ 48 VDC 0.07A @ 24 VDC


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)

POLARITY SENSITIVE VERSION		
VOLTAGE	CURRENT	CYCLES 1 cycle = 1 make + 1 break
450V	250A	5,000
650V	250A	200
BI-DIRECTIONAL VERSION		
VOLTAGE	CURRENT	CYCLES 1 cycle = 1 make + 1 break
450V	250A	5,000
650V	250A	200

OPTIONS

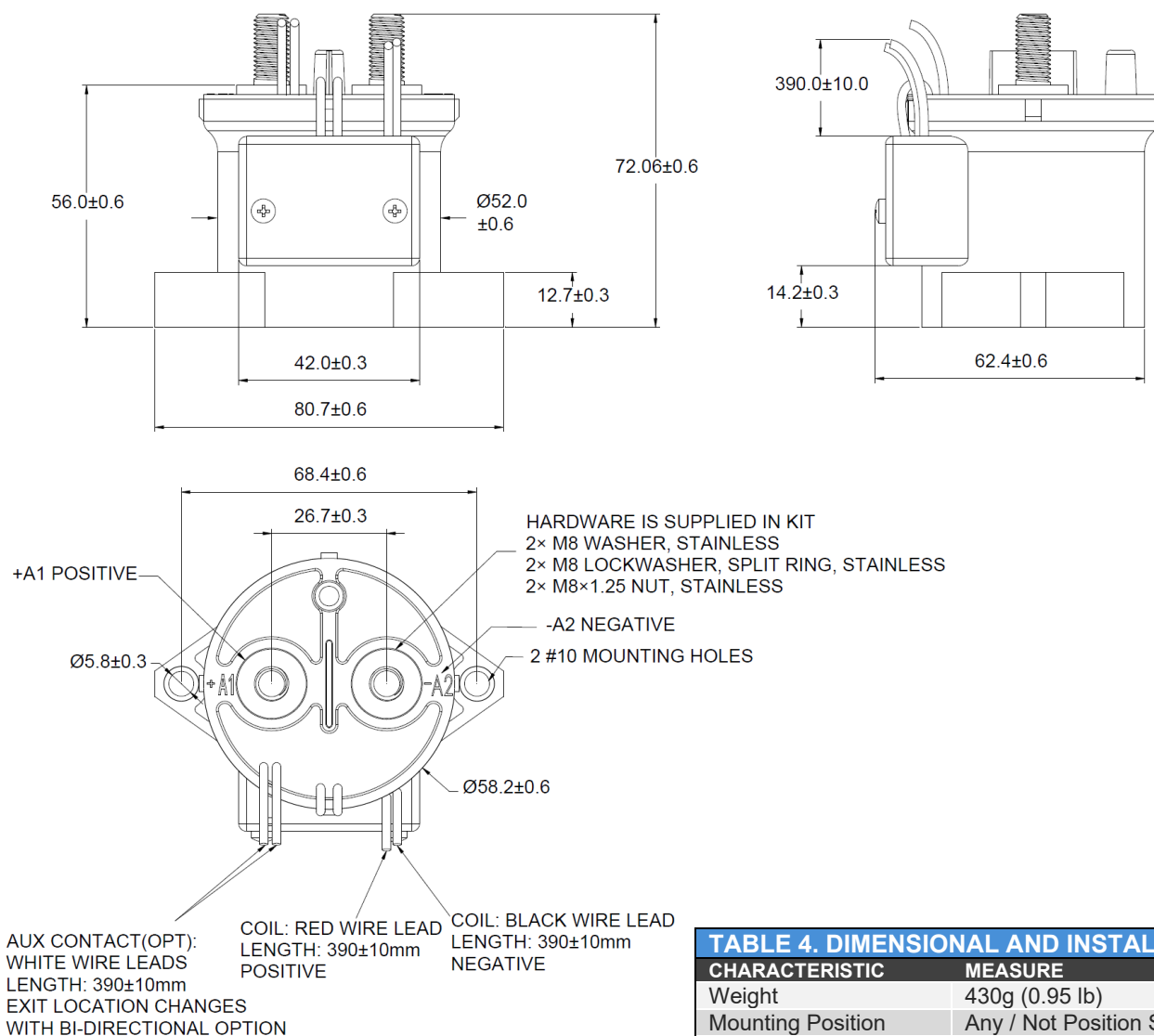
TABLE 3. PRODUCT NOMENCLATURE

TABLE OF PRODUCT NOMINATIONS				
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC35		1 Bottom Mount	J 9-36V integrated PWM	X None
	B Bi-directional		L 9-36V external PWM ¹	A Normally Open
	P Polarity Sensitive		M 32-95V integrated PWM	B Normally Closed ²
			N 32-95V external PWM ¹	

¹ Requires customer to provide PWM controls for the coil

² Normally Closed auxiliary contacts only available on polarity sensitive version

PRODUCT DIMENSIONS [mm]


TABLE 4. DIMENSIONAL AND INSTALLATION

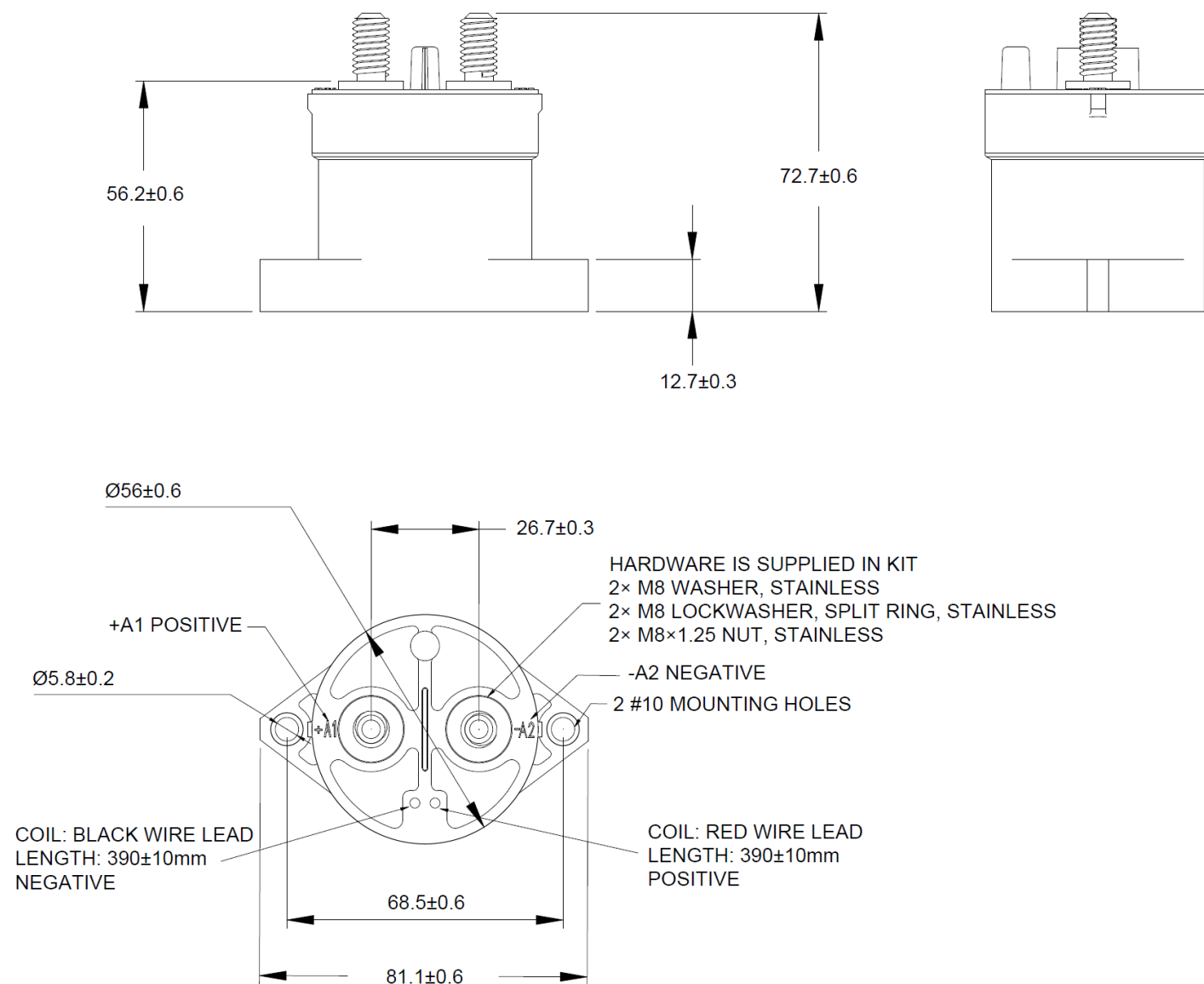
CHARACTERISTIC	MEASURE
Weight	430g (0.95 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	20 pieces
Install Torque	9-11Nm (80-97 in-lb)
M8 Main Terminals	
M5 Mounting Inserts	2-4 Nm (17-35 in-lb)

Internal Coil Economizer Version

TABLE 5. PRODUCT NOMENCLATURE

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC35	P Polarity Sensitive	1 Bottom Mount	K 9-36V internal PWM	X None

PRODUCT DIMENSIONS [mm]



NOTES

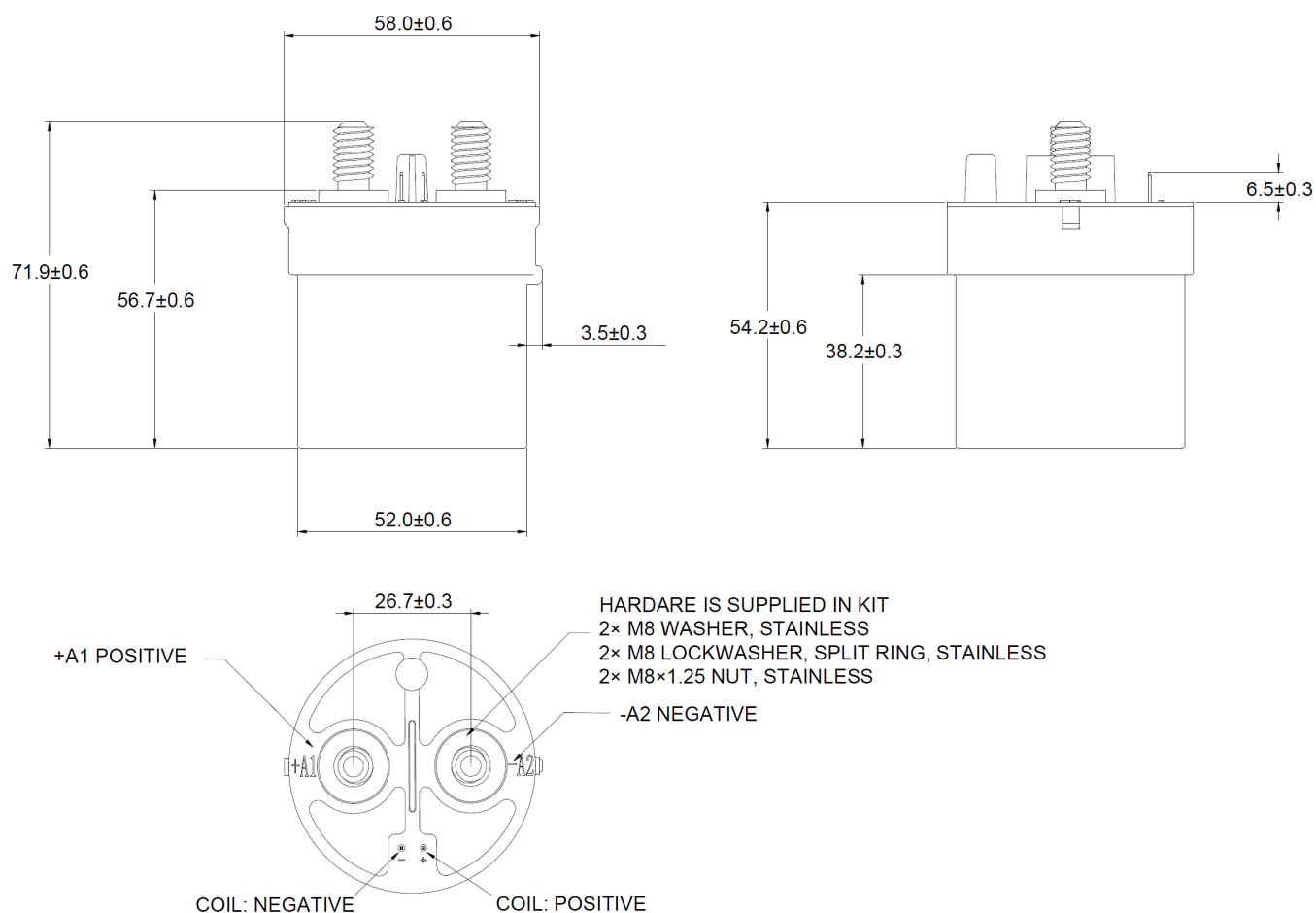
- Auxiliary contacts are not an option for the REC35 version with internal economizer (K coil) or the PCB mountable version.

PCB Mountable Version

TABLE 6. PRODUCT NOMENCLATURE

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC35	P Polarity Sensitive	3 PCB mount	K 9-36V internal PWM	X None

PRODUCT DIMENSIONS [mm]



NOTES

- Polarity Sensitive versions are marked +A1 and -A2 for the power terminals. For applications that require the contactor to open under load, please ensure current is flowing from the +A1 to the -A2 terminal. For Bi-Directional versions the direction of current does not matter when breaking under load.
- Attached cables and busbars directly to the main terminal pad using the recommended install torque. Do not use washers or other materials between the contactor and the conductor. This will ensure the lowest possible contact resistance.
- Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.
- Contactor may be used above Max Switching Voltage if the application does not require significant load breaking. Please contact Rincon Power to discuss in more detail.