



Our new Dragon Series, which consists of the SE type contactor, are a unique and innovative design of compact contactor suitable for applications including UPS and Telecom Power Systems, Electric Vehicles and Frequency Converters. The series offers both Normally Open and Normally Closed Single Pole Single Throw configurations and are rated from 100 to 400 amps continuously. Coil driver options include Standard, Dual Coil and Magnetic Latching options.

Directly compatible with existing contactors within the market, the Dragon Series offers superior performance, size and quality.



**100 AMPS** 

SEO100 - Normally Open

**SEC100 - Normally Closed** 

**200 AMPS** 

SEO200 - Normally Open SEC200 - Normally Closed **400 AMPS** 

SEO400 - Normally Open SEC400 - Normally Closed

**SEC100** 100 Amps

Single Pole Single Throw Normally Closed



SEO100 Coil Driver			
Description Watts			
Standard - operates as conventional CO coil	5 - 7W	С	
Intermittent	10 - 14W	1	
Magnetic Latching <sup>1</sup>	10 - 14W	М	
Dual Coil	Starting: Up to 120W	D	
Duai Coli	Holding: Up to 4W	Б	
1 Coil Polarity Markings must be Observed			

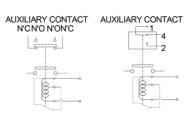
### **SEO100 Connection Diagrams**

Conventional or Magnetic Latching

SEO100A SEO100C

AUXILIARY CONTACT AUXILIARY CONTACT N'C N'O N'ON'C

Dual Coil



Coil Polarity markings must be observed for Magnetic Latching or when suppression fitted.

For Magnetic Latching coils: Supply positive to coil '+' to close switch Supply positive to coil '-' to open switch

Continuous Current Rating (Ith)	100A
Configuration:	
SEO100	Normally Open
SEC100	Normally Closed
Pole	Single
Throw	Single
Ambient Temperature	- 40°C to + 70°C
Main Contact Rated Voltage	Up to 60V D.C.
Typical Voltage Drop across New Contacts at 100A	50mV
Pull-in Voltage	max 66% of nominal
Drop-Out Voltage	10 - 25% of nominal
Pull-In Time	15ms typical
Drop-Out Time:	
Without Suppression	6ms
With Suppression <sup>1</sup>	35ms
Contact Bounce	3ms typical
Insulation Voltage (Dielectric Strength)	1500V A.C.
Mechanical Life:	
SEO100	>1,000,000 operations
SEC100	>50,000 operations
Electrical Life <sup>2</sup> (100A at 60V):	
SEO100	>10,000 operations
SEC100	>10,000 operations
IP Rating	IP40
Shock	30g acceleration; 18mS; half sinusoidal wave form in accordance with IEC60068-2-27
Vibration	10-500Hz frequency; 5g acceleration; in 3 axes in accordance with IEC60068-2-6
Weight	250gms
Note: Figures are at 20°C	

<sup>1</sup> Coil Polarity Markings must be Observed

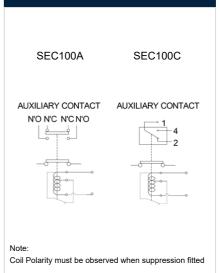
technical@albrightinternational.com

<sup>2</sup> For further advice, please contact Albright Technical at

### SEO100 & SEC100 Technical Data SEO100 & SEC100 Available Coil Voltages 24V 30V 36V 48V 60V Further Options Available SEO100 & SEC100 Part Numbering SEO100A-60 SF Coil Suppression Fitted (optional) Coil Driver<sup>1</sup> Rated Coil Voltage Auxiliary (Optional) Rated Current Configuration Type <sup>1</sup> Suffix will depend on coil driver option chosen (C,I,M or D)

<sup>1</sup> Coil Polarity markings must be observed

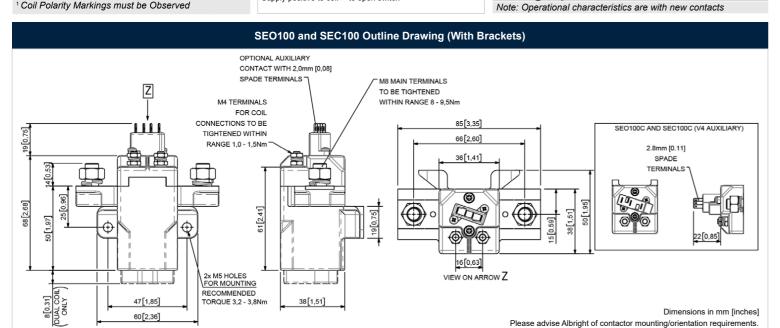
SEO100 & SEC100 Options	Note	Suffix
Configuration	Normally Open	0
	Normally Closed	С
Auxiliary	Form Z	A
	Form C (V4)	С
Coil Suppression <sup>1</sup>	Diode	S
Brackets	Please refer to Drawing for Options	F
Note: Silver Plating is provided as standard, but can be removed at the option of the customer. Please consult our Technical Department for further advice.		

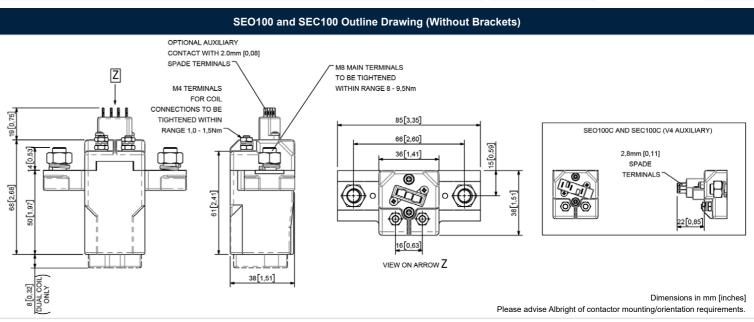


**SEC100 Connection Diagram** 

s	E100A	
Auxiliar	y Contact	
Auxiliary Thermal Current Ratin	ng	5A
Auxiliary Contact Switching	Capabilities	(Resistive Load):
SEO/SEC100C	SEC	D/SEC100A
5A at 2	4V D.C.	
1A at 6	0V D.C.	
0.5A at 1	120V D.C.	
0.25A at	240V D.C.	

SEC100 Coil Driver		
Description	Watts	Suffix
Dual Coil	Starting: Up to 120W	D
	Holding: Up to 4W	









SEC200C

**Connection Diagram** 

AUXILIARY CONTACT AUXILIARY CONTACT

SEC200A

N'O N'C N'C N'O

*SEC*200

SEO200 Coil Driver			
Description Watts Suffix			
Standard - operates as conventional CO coil	7 - 13W	С	
Intermittent	15 - 20W	1	
Magnetic Latching <sup>1</sup>	15 - 20W	М	
Dual Coil	Starting: Up to 165W	D	
	Holding: Up to 7W	U	
<sup>1</sup> Coil Polarity Markings must be Observed			

# **Connection Diagram**

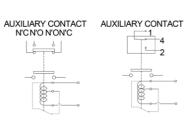
Conventional or Magnetic Latching

SEO200A SEO200C

AUXILIARY CONTACT AUXILIARY CONTACT N'C N'O N'O N'C



**Dual Coil** 



Coil Polarity markings must be observed for Magnetic Latching or when suppression fitted.

For Magnetic Latching coils: Supply positive to coil '+' to close switch Supply positive to coil '-' to open switch

Continuous Current Rating (Ith)	200A
Configuration:	
SEO200	Normally Open
SEC200	Normally Closed
Pole	Single
Throw	Single
Ambient Temperature	- 40°C to + 70°C
Main Contact Rated Voltage	Up to 60V D.C.
Typical Voltage Drop per pole across New Contacts at 200A	50mV
Pull-in Voltage	max 66% of nominal
Drop-Out Voltage	10 - 25% of nominal
Pull-In Time	15ms typical
Drop-Out Time:	
Without Suppression	6ms
With Suppression <sup>1</sup>	35ms
Contact Bounce	3ms typical
Insulation Voltage (Dielectric Strength)	1500V A.C.
Mechanical Life:	
SEO200	>1,000,000 operations
SEC200	>50,000 operations
Electrical Life <sup>2</sup> (200A at 60V):	
SEO200	>10,000 operations
SEC200	>10,000 operations
IP Rating	IP40
Shock	30g acceleration; 18mS; half sinusoidal wave form in accordance with IEC60068-2-27
Vibration	10-500Hz frequency; 5g acceleration; in 3 axes in accordance with IEC60068-2-6
Weight	490gms
Note: Figures are at 20°C	

SEO200 & SEC200 Technical Data

<sup>1</sup> Coil Polarity Markings must be Observed <sup>2</sup> For further advice, please contact Albright Technical at technical@albrightinternational.com Note: Operational characteristics are with new contacts

# SEO200 & SEC200 Available Coil Voltages 24V 30V 48V 60V 36V Further Options Available SEO200 & SEC200 Part Numbering SEO200A-60 SF Bracket Coil Suppression Fitted (optional)

Coil Suppression<sup>1</sup>

Technical Department for further advice.

Rated Coil Volt Auxiliary (Optio Rated Current Configuration Type  Suffix will depend on coil driver option chosen (C,I	onal)	Note: Coil Polarity must be obse	rved when suppression fitted
SEO200 & SEC200 Options	Note		Suffix
Configuration	Normally Open		0
	Normally Closed		С
Auxiliary	Form Z		A
	Form C (V3)		C

Please refer to Drawing for Options

Note: Silver Plating is provided as standard, but can be removed at the option of the customer. Please consult our

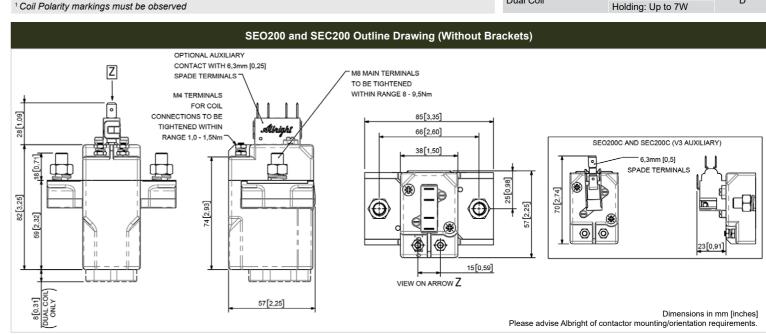
Diode

NAMES OF THE SECTION
SE200A

Auxiliary Contact			
ng 5A			
Auxiliary Contact Switching Capabilities (Resistive Load):			
SEO/SEC200A			
5A at 24V D.C.			
2A at 48V D.C.			
0.5A at 240V D.C.			
1			

SEC200 Coil Driver		
Description	Watts	Suffix
Dual Cail	Starting: Up to 165W	D
Dual Coil	Holding: Up to 7W	D

### SEO200 and SEC200 Outline Drawing (With Brackets) OPTIONAL AUXILIARY CONTACT WITH 6,3mm [0,25] M8 MAIN TERMINALS SPADE TERMINALS 7 TO BE TIGHTENED WITHIN RANGE 8 - 9.5Nm M4 TERMINALS FOR COIL CONNECTIONS TO BE 85[3,35] TIGHTENED WITHIN SEO200C AND SEC200C (V3 AUXILIARY) RANGE 1,0 - 1,5Nm 66[2,60] 6,3mm [0,25] 38[1,50] $\odot$ 2x M5 HOLES FOR MOUNTING RECOMMENDED TORQUE 3,2 - 3,8Nm 15[0,59] VIEW ON ARROW Z47[1,85] Dimensions in mm [inches] 62[2,44] Please advise Albright of contactor mounting/orientation requirements.







*SEC*400 400 Amps

Single Pole Single Throw Normally Closed



SEO400 Coil Driver			
Description Watts Suffix			
Standard - operates as conventional CO coil	10 - 15W	С	
Intermittent	30 - 40W	1	
Magnetic Latching <sup>1</sup>	30 - 40W	М	
Dual Coil	Starting: Up to 220W	D	
Duai Coii	Holding: Up to 8.5W	Ъ	
<sup>1</sup> Coil Polarity Markings must be Observed			

62[2,44]

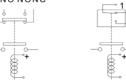
# **Connection Diagram**

Conventional or Magnetic Latching

SEO400A

SEO400C

AUXILIARY CONTACT AUXILIARY CONTACT N'C N'O N'ON'C



**Dual Coil** 

AUXILIARY CONTACT AUXILIARY CONTACT N'CN'O N'ON'C

Coil Polarity markings must be observed for Magnetic Latching or when suppression fitted.

For Magnetic Latching coils: Supply positive to coil '+' to close switch Supply positive to coil '-' to open switch

#### SEO400 & SEC400 Technical Data Continuous Current Rating (Ith) 400A 24V

30g acceleration; 18mS; half

sinusoidal wave form in

accordance with IEC60068-2-27

Dimensions in mm [inches]

Please advise Albright of contactor mounting/orientation requirements.

Configuration:		
SEO400	Normally Open	
SEC400	Normally Closed	
Pole	Single	
Throw	Single	
Ambient Temperature	- 40°C to + 70°C	
Main Contact Rated Voltage	Up to 60V D.C.	
Typical Voltage Drop across New Contacts at 400A	50mV	
Pull-in Voltage	max 66% of nominal	
Drop-Out Voltage	10 - 25% of nominal	
Pull-In Time	15ms typical	
Drop-Out Time:		
Without Suppression	6ms	
With Suppression <sup>1</sup>	35ms	
Contact Bounce	3ms typical	
Insulation Voltage (Dielectric Strength)	1500V A.C.	
Mechanical Life:		
SEO400	>1,000,000 operations	
SEC400	>50,000 operations	
Electrical Life <sup>2</sup> (400A at 60V):		
SEO400	>10,000 operations	
SEC400	>10,000 operations	
IP Rating	IP40	

10-500Hz frequency; 5g acceleration; in 3 axes in Vibration accordance with IEC60068-2-6 830ams Weiaht

Note: Figures are at 20°C

<sup>1</sup> Coil Polarity Markings must be Observed

<sup>2</sup> For further advice, please contact Albright Technical at technical@albrightinternational.com

Note: Operational characteristics are with new contacts

## SEO400 & SEC400 Available Coil Voltages

48V

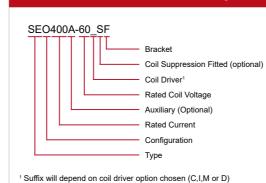
60V

Further Options Available

30V

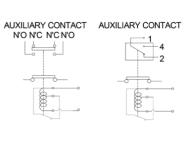
### SEO400 & SEC400 Part Numbering

36V



**Connection Diagram** 

SEC400A SEC400C



Coil Polarity must be observed when suppression fitted

# **Auxiliary Contact** Auxiliary Thermal Current Rating Auxiliary Contact Switching Capabilities (Resistive Load): SEO/SEC400C SEO/SEC400A 5A at 24V D.C.

0.5A at 240V D.C.		
SEC400 Coil Driver		
Description	Watts	Suffix
Dual Coil	Starting: Up to 220W	D
	Holding: Up to 8.5W	D

Please advise Albright of contactor mounting/orientation requirements.

Dimensions in mm [inches]

2A at 48V D.C.

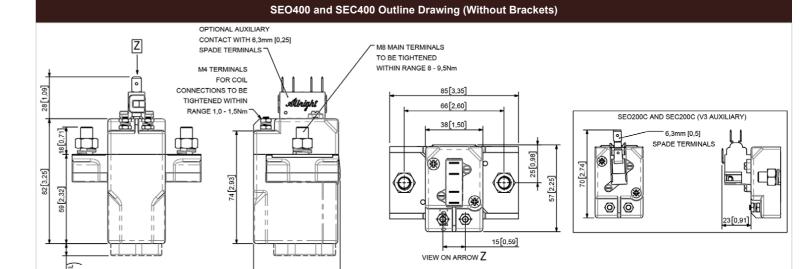
SEO400 & SEC400 Options Note Suffix Configuration Normally Open 0 Normally Closed Form Z Auxiliary Form C (V3) Coil Suppression<sup>1</sup> Diode Please refer to Drawing for Options Brackets

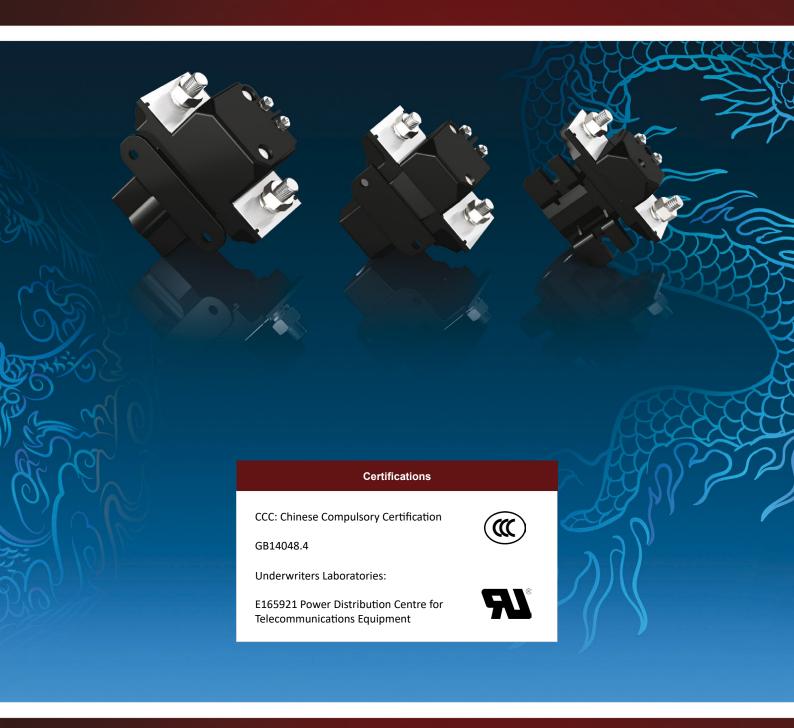
Note: Silver Plating is provided as standard, but can be removed at the option of the customer. Please consult our Technical Department for further advice.

57[2,25]

<sup>1</sup> Coil Polarity markings must be observed

### SEO400 and SEC400 Outline Drawing (With Brackets) OPTIONAL AUXILIARY CONTACT WITH 6,3mm [0,25] M8 MAIN TERMINALS SPADE TERMINALS TO BE TIGHTENED VITHIN RANGE 8 - 9,5Nm M4 TERMINALS FOR COIL CONNECTIONS TO BE 85[3,35] TIGHTENED WITHIN SEO200C AND SEC200C (V3 AUXILIARY) RANGE 1.0 - 1.5Nm 66[2,60] 38[1,50] 2x M5 HOLES FOR MOUNTING 15[0,59] 15[0,59] 8[0,31] (DUAL COIL) ONLY VIEW ON ARROW $\boldsymbol{Z}$ RECOMMENDED TORQUE 3,2 - 3,8Nm 56[2,19] 47[1,85]





### Please Note:

- Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.

  Thermal current ratings stated are dependant upon the size of conductor being used.
- Please advise Albright of contactor mounting/orientation requirements. Mounting can be horizontal or vertical, but orientation should be reviewed.
- For further technical advice email: technical@albrightinternational.com \\
- Albright reserve the right to change data without prior notice.

www.albrightinternational.com