DEVR10 Electric Vehicle Contactor





• High current and high voltage capability

- Compact structure Low noise
- Magnetic arc blowout
- Max 900VDC @ 100A
- Reliable contacts in inert gas
- No special installation required
- RoHS Compliant

Contacts

Ounders				
Contact number & arrangement	SPST-NO (1NO)			
Contact material	AgSnO ₂			
Max. switching voltage	900VDC			
Min. switching voltage	12VDC			
Min. switching current	100mA			
Rated continuous current	100A * ¹ (voltage dependant)			
Max. switching current	200A (3 mins) #8 AWG (8.4mm ²) wire, at +40°C			
Max. short circuit current	1250A (1/2 sine, 50/60Hz)			
Voltage drop	≤80mV@100A)			
Coil				
Rated voltage	12 ~ 72VDC			
Operating range of supply voltage	See coil data 'Table 1'			
Rated coil power consumption	5.5 ~ 6.0W			
Insulation				
Insulation resistance (Initial / End of Life)	100MΩ / 50MΩ at 500VDC			
Dielectric strength				
coil - contact	2,000Vrms / 4000VDC			
contact - contact	5,600Vrms / 8000VDC			
General Data				
Operating time mS	\leq 25ms. (includes bounce time - 5ms max)			
Release time mS	≤ 20ms.			
Electrical Life ops	50,000 @ 50A/400VDC : 6000 @ 100A/400VDC			
Mechanical life ops	1 x 10 ⁶			
Dimensions L x W x H	53.85 x 40 x 52.41mm (see drawings for detail)			
Weight	190g ±2g			
Ambient Temperature operating / storage	-40 to +85°C			
Shock resistance	20G, 11ms ½ sine, peak			
Vibration resistance	20G, sine, peak (55~2,000 Hz)			
Noise (at 100mm)	70dB(a)			

* Consult factory for higher current capabilities

¹ Recommended wire - #8AWG (8.4mm²)

² Failure to observe correct polarity for load terminal connections will result in degraded life.

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Coil Data - DEVR10

Table 1

Coil Voltage Code	Nominal Voltage (VDC)	Voltag	Dperate e Max. DC) 85°C	Maximum Allowable Voltage (VDC)	Must Release Voltage Min. (VDC)	Coil- Resistance (Ω ± 5% @ 20°C)	Coil Current (mA)	Coil Power (W @ 20°C)
1012	12	8	9.6	16	1.2	26	461	5.5
1024	24	18	19.2	28	2.4	96	250	6.0
1028	28	21	22.4	31	2.24	136	206	5.7
1048	48	33	38.4	52	4.8	392	122	6.0
1072	72	21	55.2	79	5.76	868	83	6.0
D E V) - [5 0	6 1 -	<u> </u>			
Contact Materia								
Contact Arrange	ement		_	İ	İİ	ĺ	ĺ	
61 - SPST-	NO, Polarity cons	scious						
Cover Protectio	n and Mounting		_		i i	i	i	
S - Flange	e mount on base							
Connection Mod	de		1					
8 - M5 St	ud]					
Coil Code								
See Coil Table	1]			İ		
Coil Wire Lengt			- -					
R - 400mr								
Other lengths a Coil Wire Termin								
1 - None			7					
	ons to special orde							

Notes:

1) Spring Washers are an essential requirement for installation - see Page 3.

- 2) Torque setting for the M5 Power Terminals is 3.4 to 4.5Nm.
- 3) Loose terminals will generate excessive heat leading to premature failure and risk of fire.
- 4) The maximum torque setting for the M4 mounting bolts (not supplied) is 2.3Nm. to avoid damage to the contactor body.

6) Please ensure the correct polarity of the wiring to the power terminals. Contact life is greatly reduced if incorrectly connected.

- 7) Contact ratings are with #8 AWG wire.
- 8) Ensure adequate circuit protection in case of contact malfunction.
- 9) The contact chamber contains an inert gas. For maximum life, do not exceed the ambient temperature range of -40 to +85°C.
- 10) Contact ratings are based upon a resistive load. For inductive loads an inrush protection device is recommended.



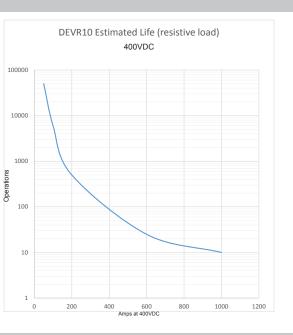
Specifications are subject to change without notice. E&OE.

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Estimated life

Overall Dimensions



M5 Bolt Important: Observe correct polarity for load terminals M5 Lockwasher M5 Washer 0 Busbar (Customer supplied) 22 AWG 400mm Correct sequence for power terminal hardware assembly 59 10 41 41 NB: Hardware is NOT supplied with the contactor. 56. 58. 52. 49. 7.62 NB: Hardware is NOT supplied with the contactor. □ 35.2 Power Terminals M5 x 0.8 Female 53.85 Hardware: (Stainless Steel) 2 x M5 Washer □40 2 x M5 Lockwasher 2 x M5 x 0.8 Bolt A2 -ve pov Torque: 3.4 to 4.5Nm \bigcirc Ø A1 +ve power terminal ø4.57 Mounting Hardware (Not supplied) 2 x M4 Bolt 2 x M4 Lockwasher 17.78 2 x M4 Narrow washe Torque: 2.3 Nm max All dimensions in millimeters 46.23

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Fig. 1

Fig. 2