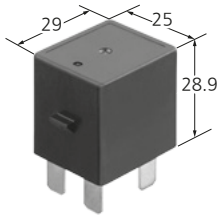
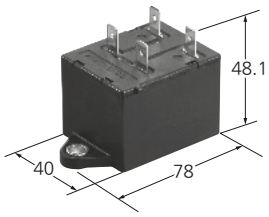
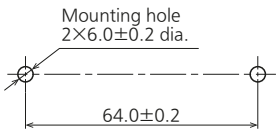
EV Relay Series Selector Chart

Type		EV Relay Series	
Application/Range		Pre-charge	Accessories
Product name		EC-N Relay	EV Relay (20 A) Normal type
Part No.		AECN11012	AEV52012
Appearance configuration (Standoff height included, Unit: mm)			
Features		Inrush current 15 A, Min. 10^5 times For Pre-charge	#250 terminal For PTC heater accessories
Attachment	Main	Faston #250	Faston #250
	Coil	Faston #250	Faston #250
	Body	—	Screw mounting (M5)
Size (W×L×H) mm		25×29×28.9	40×78×48.1
Contact data	Contact arrangement (polarity)	1 Form A (With polarity)	1 Form A (With polarity)
	Rated switching capacity (resistive) * ( ) : Minimum required busbar diameter	15 A 400 V DC (Inrush) (2 mm^2)	20 A 400 V DC (Carry) (3 mm^2)
	Short circuit resistance capability No smoke and no ignition	—	—
	Maximum cut-off current	15 A 400 V DC, Min. 10 operations	60 A 400 V DC, Min. 50 operations
Coil data	Rated coil voltage	12 V DC	12 V DC
	Operate (Set) voltage (at 20℃) (initial)	Max. 6.8 V DC	Max. 9.0 V DC
	Release (Reset) voltage (at 20℃) (initial)	Min. 0.5 V DC	Min. 0.5 V DC
Time characteristics	Operate (Set) time (Rated coil voltage 20℃)	Max. 50 ms (without bounce)	Max. 50 ms (without bounce)
	Release (Reset) time (Rated coil voltage 20℃)	Max. 30 ms (with no coil protective elements)	Max. 30 ms (with no coil protective elements)
Expected life	Mechanical	Min. $2×10^5$	Min. $2×10^5$
Dielectric strength	Between open contacts (initial)	2,500 Vrms for 1 min.	2,500 Vrms for 1 min.
	Between contacts and coil (initial)	2,500 Vrms for 1 min.	2,500 Vrms for 1 min.
Ambient temperature		−40 to +85 ℃	−40 to +80 ℃
Mounting dimensions		—	
Unit Weight (approx.)		40 g	180 g

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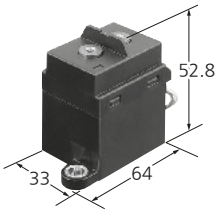
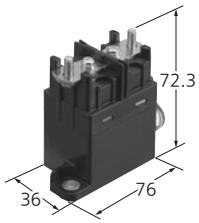
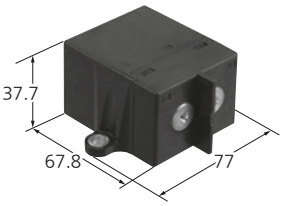
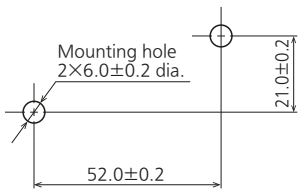
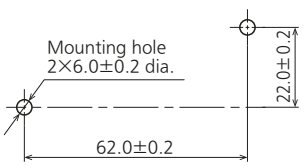
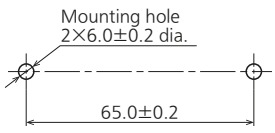
EV Relay Series Selector Chart

Type		EV Relay Series		
Application/Range		Main 60 A		
Product name		EV Relay (60 A) Compact high short-circuit capacity type	EV Relay (60 A) Quiet type	EV Relay (60 A) Quiet type
Part No.		AEVG16012	AEVS16012 (Vertical type)	AEVS960122 (Horizontal type)
Appearance configuration (Standoff height included, Unit: mm)				
Features		4,500A short circuit capability No contact polarity Ultra small size	Compact and quiet type	Compact and quiet type
Attachment	Main	Female M4 screw	Male M5 screw	Female M4 screw
	Coil	Lead wire (without connector)	Lead wire (without connector)	Faston #250
	Body	Screw mounting (M5)	Screw mounting (M5)	Screw mounting (M5)
Size (W×L×H) mm		33×64×52.8	36×76×72.3	77×67.8×37.7
Contact data	Contact arrangement (polarity)	1 Form A (No polarity)	1 Form A (With polarity)	1 Form A (With polarity)
	Rated switching capacity (resistive) * ( ) : Minimum required busbar diameter	60 A 450 V DC (Carry) (15 mm^2)	60 A 450 V DC (Carry) (15 mm^2)	60 A 450 V DC (Carry) (15 mm^2)
	Short circuit resistance capability No smoke and no ignition	4,500 A (10 ms)	—	—
	Maximum cut-off current	400 A 300 V DC, Min. 1 operation	600 A 300 V DC, Min. 5 operations	600 A 300 V DC, Min. 5 operations
Coil data	Rated coil voltage	12 V DC	12 V DC	12 V DC
	Operate (Set) voltage (at 20℃) (initial)	Max. 9.0 V DC	Max. 9.0 V DC	Max. 9.0 V DC
	Release (Reset) voltage (at 20℃) (initial)	Min. 0.5 V DC	Min. 1.0 V DC	Min. 1.0 V DC
Time characteristics	Operate (Set) time (Rated coil voltage 20℃)	Max. 50 ms (without bounce)	Max. 50 ms (without bounce)	Max. 50 ms (without bounce)
	Release (Reset) time (Rated coil voltage 20℃)	Max. 30 ms (with no coil protective elements)	Max. 50 ms (with no coil protective elements)	Max. 50 ms (with no coil protective elements)
Expected life	Mechanical	Min. 2×10^5	Min. 2×10^5	Min. 2×10^5
Dielectric strength	Between open contacts (initial)	2,500 Vrms for 1 min.	2,500 Vrms for 1 min.	2,000 Vrms for 1 min.
	Between contacts and coil (initial)	2,500 Vrms for 1 min.	2,500 Vrms for 1 min.	2,000 Vrms for 1 min.
Ambient temperature		−40 to +80 ℃	−40 to +80 ℃	−40 to +80 ℃
Mounting dimensions				
Unit Weight (approx.)		165 g	250 g	240 g

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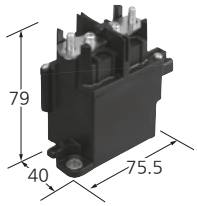
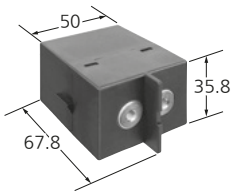
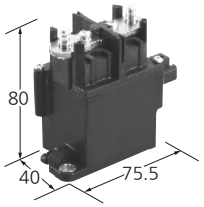
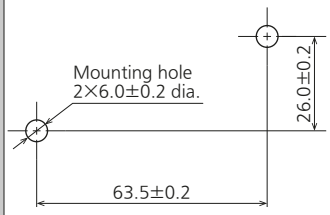
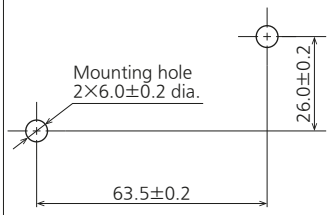
EV Relay Series Selector Chart

Type		EV Relay Series				
Application/Range		Main / Charging 80 A		Main 100 A	Main / Charging 120 A	
Product name		EV Relay (80 A) Normal type		EV Relay (100 A) High short-circuit capacity type	EV Relay (120 A) Normal type	
Part No.		AEV18012	AEV18024	AEVH900122	AEV14012	AEV14024
Appearance configuration (Standoff height included, Unit: mm)						
Features		With bus bar Connector type available (Lead wire type conversion connector: Please contact our sales representative)		No contact polarity	With bus bar Connector type available (Lead wire type conversion connector: Please contact our sales representative)	
Attachment	Main	Male M5 screw		Female M5 screw	Male M6 screw	
	Coil	Connector		Faston #250	Connector	
	Body	Screw mounting (M5)		—	Screw mounting (M5)	
Size (W×L×H) mm		40×75.5×79		50×67.8×35.8	40×75.5×80	
Contact data	Contact arrangement (polarity)	1 Form A (With polarity)		1 Form A (No polarity)	1 Form A (With polarity)	
	Rated switching capacity (resistive) * ( ) : Minimum required busbar diameter	80 A 450 V DC (Carry) (15 mm^2)		100 A 450 V DC (Carry) (30 mm^2)	120 A 450 V DC (Carry) (38 mm^2)	
	Short circuit resistance capability No smoke and no ignition	—		—	—	
	Maximum cut-off current	800 A 300 V DC, Min. 1 operation		1,000 A 400 V DC, Min. 1 operation	1,200 A 300 V DC, Min. 1 operation	
Coil data	Rated coil voltage	12 V DC	24 V DC	12 V DC	12 V DC	24 V DC
	Operate (Set) voltage (at 20℃) (initial)	Max. 9.0 V DC	Max. 18.0 V DC	Max. 9.0 V DC	Max. 9.0 V DC	Max. 18.0 V DC
	Release (Reset) voltage (at 20℃) (initial)	Min. 1.0 V DC	Min. 2.0 V DC	Min. 0.5 V DC	Min. 1.0 V DC	Min. 2.0 V DC
Time characteristics	Operate (Set) time (Rated coil voltage 20℃)	Max. 50 ms (without bounce)		Max. 50 ms (without bounce)	Max. 50 ms (without bounce)	
	Release (Reset) time (Rated coil voltage 20℃)	Max. 30 ms (with no coil protective elements)		Max. 30 ms (with no coil protective elements)	Max. 30 ms (with no coil protective elements)	
Expected life	Mechanical	Min. 2×10^5		Min. 2×10^5	Min. 2×10^5	
Dielectric strength	Between open contacts (initial)	2,500 Vrms for 1 min.		2,500 Vrms for 1 min.	2,500 Vrms for 1 min.	
	Between contacts and coil (initial)	2,500 Vrms for 1 min.		2,500 Vrms for 1 min.	2,500 Vrms for 1 min.	
Ambient temperature		−40 to +80 ℃		−40 to +80 ℃	−40 to +80 ℃	
Mounting dimensions				—		
Unit Weight (approx.)		400 g		275 g	400 g	

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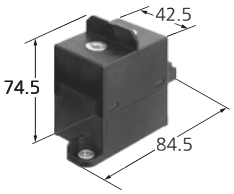
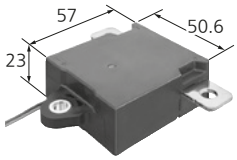
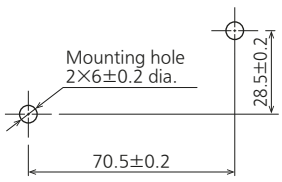
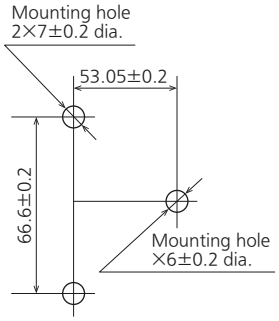
EV Relay Series Selector Chart

Type		EV Relay Series	
Application/Range		Main / Charging 250 A	48 V Mild HEV
Product name		EV-A Relay (250 A)	EB-N Relay
Part No.		AEVA1251	AEBN11112
Appearance configuration (Standoff height included, Unit: mm)			
Features		8,000 A short circuit capability No contact polarity	For Battery disconnect application
Attachment	Main	Female M6 screw	Screw mounting (M6)
	Coil	Connector	Lead wire (without connector)
	Body	Screw mounting (M5)	Screw mounting (M5)
Size (W×L×H) mm		42.5×84.5×74.5	57×50.6×23
Contact data	Contact arrangement (polarity)	1 Form A (No polarity)	1 Form A (With polarity)
	Rated switching capacity (resistive) * ( ) : Minimum required busbar diameter	250 A 500 V DC (Carry) (50 mm^2)	100 A 60 V DC (Carry) (38 mm^2)
	Short circuit resistance capability No smoke and no ignition	8,000 A (5 ms)	—
	Maximum cut-off current	1,800 A 500 V DC, Min. 1 operation	1,500 A、60 V DC, Min. 1 operation
Coil data	Rated coil voltage	12 V DC	12 V DC
	Operate (Set) voltage (at 20℃) (initial)	Max.9.0 V DC	Max. 9.0 V DC
	Release (Reset) voltage (at 20℃) (initial)	Min. 0.5 V DC	Min. 0.5 V DC
Time characteristics	Operate (Set) time (Rated coil voltage 20℃)	Max. 50 ms (without bounce)	Max. 50 ms (without bounce)
	Release (Reset) time (Rated coil voltage 20℃)	Max. 30 ms (with no coil protective elements)	Max. 30 ms (with no coil protective elements)
Expected life	Mechanical	Min. 2×10^5	Min. 4×10^5
Dielectric strength	Between open contacts (initial)	2,500 Vrms for 1 min.	1,500 Vrms for 1 min.
	Between contacts and coil (initial)	2,500 Vrms for 1 min.	2,000 Vrms for 1 min.
Ambient temperature		−40 to +85 ℃	−40 to +85 ℃
Mounting dimensions			
Unit Weight (approx.)		400 g	140 g

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