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E6 Hinge

Position control · Constant torque

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Large: Zinc alloy, black paint
Medium: Aluminum alloy, black paint

Performance Details

Cycle performance: 20,000 cycles within ± 20% of static torque specification

Radial load:
Large:
Maximum static load: 200 N (45 lbf)
Average ultimate load:
11000 N (2470 lbf)

Medium:
Maximum static load: 155 N (35 lbf)
Average ultimate load:
3000 N (675 lbf)

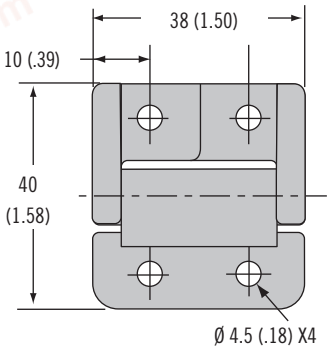
Axial load:
Large:
Maximum static load: 200 N (45 lbf)
Average ultimate load:
2800 N (630 lbf)

Medium:
Maximum static load: 155 N (35 lbf)
Average ultimate load:
1600 N (360 lbf)

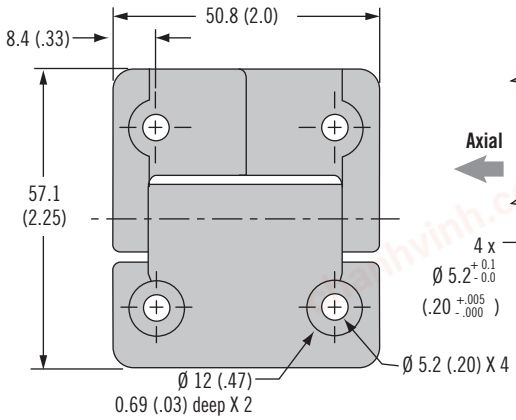
Part Number

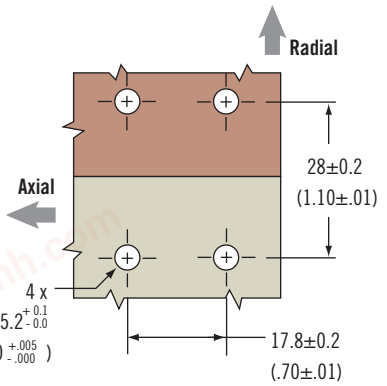
See table

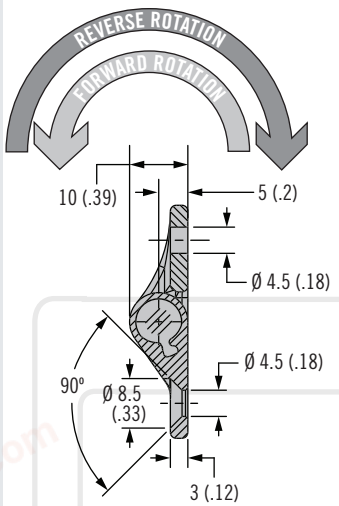
Medium

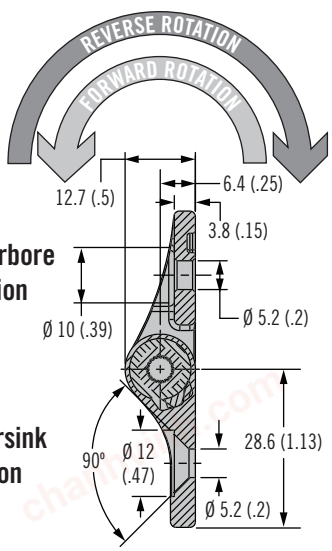


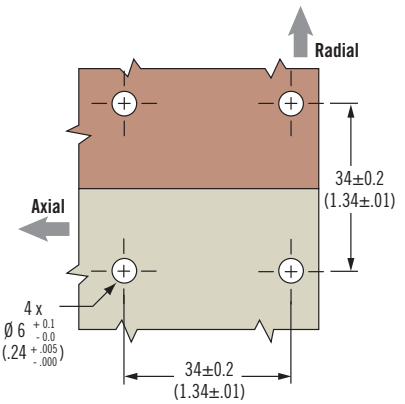
Large











ACTUAL SIZE

Symmetric

	Part Number		Symmetric Torque N·m
	Thru hole	Countersink	
Medium	E6-10-200-50	E6-10-200C-50	Free operating
	E6-10-208-50	E6-10-208C-50	0.9 (8)
	E6-10-212-50	E6-10-212C-50	1.4 (12)
	E6-10-216-50	E6-10-216C-50	1.8 (16)
	E6-10-220-50	E6-10-220C-50	2.3 (20)
Large	E6-10-400-50	E6-10-400C-50	Free operating
	E6-10-416-50	E6-10-416C-50	1.8 (16)
	E6-10-420-50	E6-10-420C-50	2.3 (20)
	E6-10-430-50	E6-10-430C-50	3.4 (30)

Asymmetric

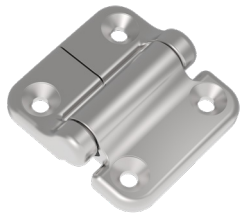
	Part Number		Forward Torque N·m	Reverse torque N·m
	Thru hole	Countersink		
Medium	E6-10-212F-50	E6-10-212FC-50	1.4 (12)	0.8 (7.2)
	E6-10-216F-50	E6-10-216FC-50	1.8 (16)	1.1 (9.6)
	E6-10-220F-50	E6-10-220FC-50	2.3 (20)	1.4 (12)
	E6-10-224F-50	E6-10-224FC-50	2.7 (24)	1.6 (14.4)
	E6-10-212R-50	E6-10-212RC-50	0.8 (7.2)	1.4 (12)
	E6-10-216R-50	E6-10-216RC-50	1.1 (9.6)	1.8 (16)
	E6-10-220R-50	E6-10-220RC-50	1.4 (12)	2.3 (20)
	E6-10-224R-50	E6-10-224RC-50	1.6 (14.4)	2.7 (24)
Large	E6-10-420F-50	E6-10-420FC-50	2.3 (20)	1.4 (12)
	E6-10-430F-50	E6-10-430FC-50	3.4 (30)	2.0 (18)
	E6-10-440F-50	E6-10-440FC-50	4.5 (40)	2.7 (24)
	E6-10-420R-50	E6-10-420RC-50	1.4 (12)	2.3 (20)
	E6-10-430R-50	E6-10-430RC-50	2.0 (18)	3.4 (30)
	E6-10-440R-50	E6-10-440RC-50	2.7 (24)	4.5 (40)

Dimensions in millimeters (inch) unless otherwise stated

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E6 Hinge

Position control · Constant torque



- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Stainless steel
Internal steel and plastic components

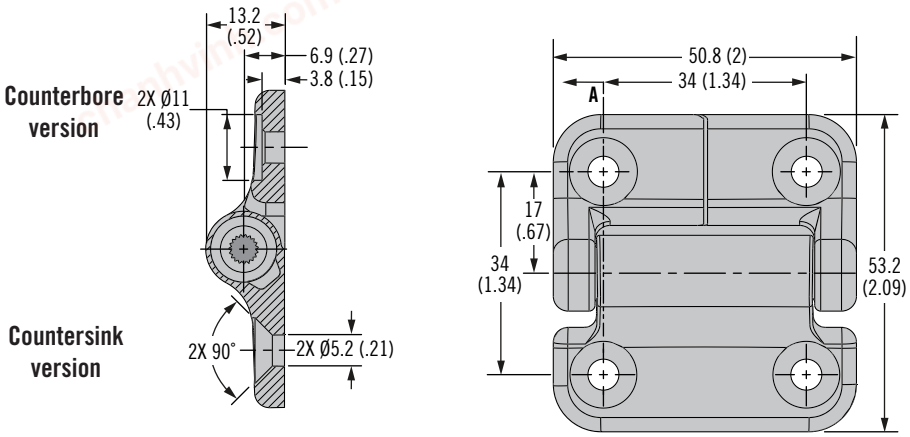
Performance Details

Cycle performance: 20,000 cycles within ± 20% of static torque specification

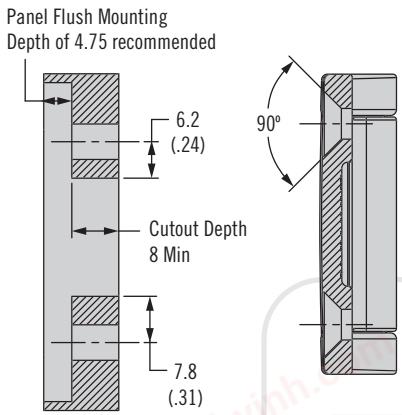
Radial load:
Maximum static load: 200 N (45 lbf)
Average ultimate load: 13k N (2,900 lbf)

Axial load:
Maximum static load: 200 N (45 lbf)
Average ultimate load: 4k N (900 lbf)

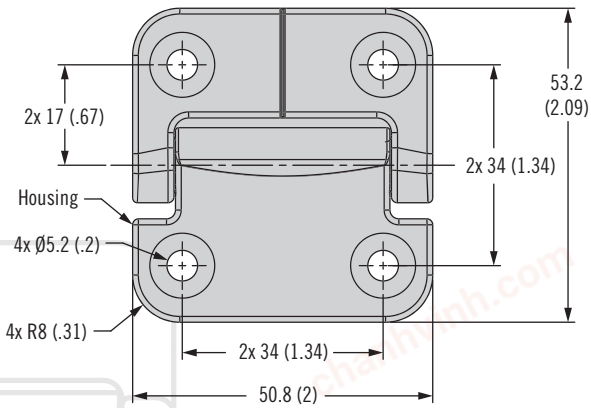
Surface Mount



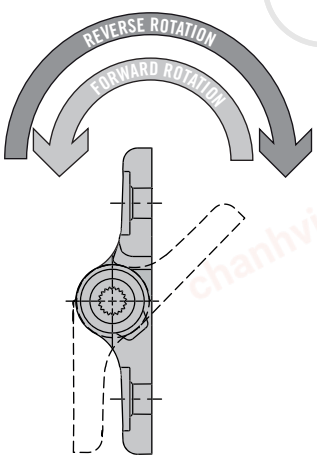
Panel Preparation



Flush Mount



ACTUAL SIZE



Surface Mount		Flush Mount		
Counterbore Part Number	Countersink Part Number	Countersink Part Number	Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
E6-70-400-XX	E6-71-400-XX	E6-73-400-XX	Free Swinging	
E6-70-408S-XX	E6-71-408S-XX	E6-73-408S-XX	0.90 (8.0)	
E6-70-416S-XX	E6-71-416S-XX	E6-73-416S-XX	1.81 (16.0)	
E6-70-420S-XX	E6-71-420S-XX	E6-73-420S-XX	2.26 (20.0)	
E6-70-430S-XX	E6-71-430S-XX	E6-73-430S-XX	3.39 (30.0)	
E6-70-420F-XX	E6-71-420F-XX	E6-73-420F-XX	2.26 (20.0)	1.54 (13.6)
E6-70-430F-XX	E6-71-430F-XX	E6-73-430F-XX	3.39 (30.0)	2.30 (20.4)
E6-70-440F-XX	E6-71-440F-XX	E6-73-440F-XX	4.52 (40.0)	3.08 (27.3)
E6-70-420R-XX	E6-71-420R-XX	E6-73-420R-XX	1.54 (13.6)	2.26 (20.0)
E6-70-430R-XX	E6-71-430R-XX	E6-73-430R-XX	2.30 (20.4)	3.39 (30.0)
E6-70-440R-XX	E6-71-440R-XX	E6-73-440R-XX	3.08 (27.3)	4.52 (40.0)

Part Number

See table

XX	Finish
24	Natural
85	High Gloss
6	Black

Dimensions in millimeters (inch) unless otherwise stated

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E6 Hinge

Position control · Constant torque

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Zinc alloy body with hardened steel internal components

Performance Details

20,000 cycles within ±20% of static torque specification

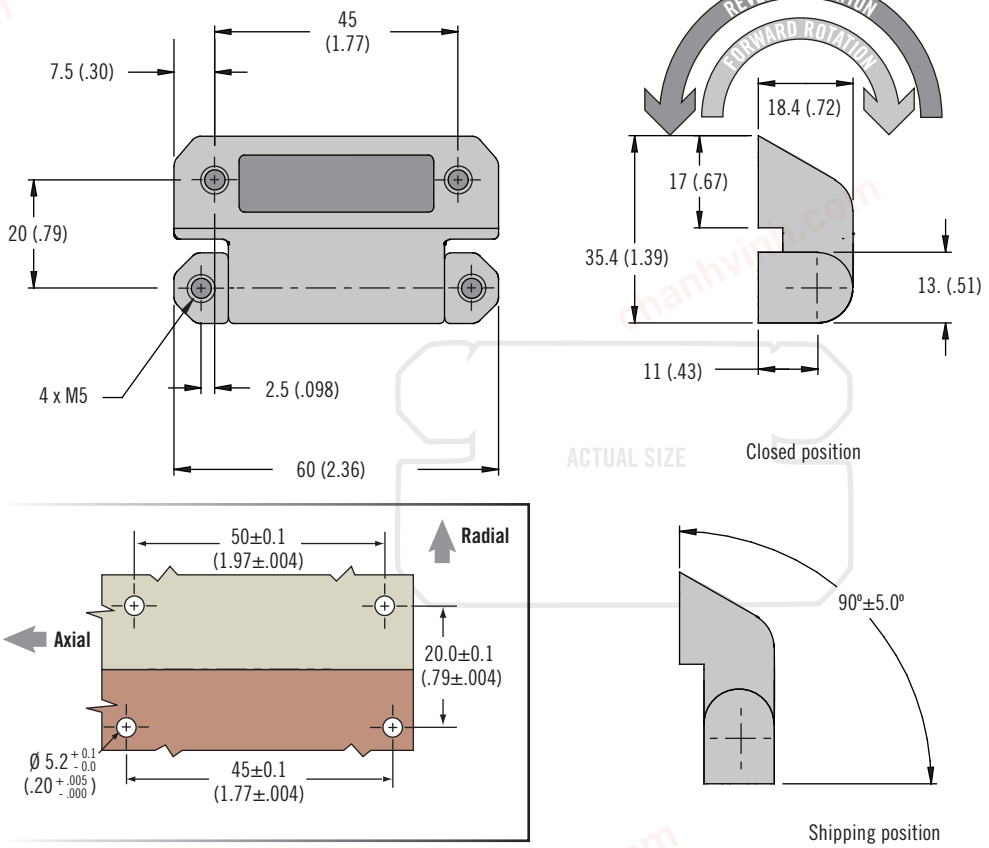
Installation Notes

Screws not supplied

Calculate screw length using the following formula:
Door thickness + 6 (.236)

Part Number

See table



Symmetric

Part Number		Symmetric Torque N·m (in·lbf)
Black	Satin Chrome	
E6-60-400-50	E6-60-400-20	Free operating
E6-60-412S-50	E6-60-412S-20	1.36 N·m (12 in·lbf)
E6-60-420S-50	E6-60-420S-20	2.26 N·m (20 in·lbf)
E6-60-428S-50	E6-60-428S-20	3.16 N·m (28 in·lbf)
E6-60-436S-50	E6-60-436S-20	4.07 N·m (36 in·lbf)

Asymmetric

Part Number		Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
Black	Satin Chrome		
E6-60-420F-50	E6-60-420F-20	2.3 (20)	1.4 (12)
E6-60-428F-50	E6-60-428F-20	3.2 (28)	1.9 (16.8)
E6-60-436F-50	E6-60-436F-20	4.1 (36)	2.4 (21.6)
E6-60-444F-50	E6-60-444F-20	5 (44)	3 (26.4)
E6-60-420R-50	E6-60-420R-20	1.4 (12)	2.3 (20)
E6-60-428R-50	E6-60-428R-20	1.9 (16.8)	3.2 (28)
E6-60-436R-50	E6-60-436R-20	2.4 (21.6)	4.1 (36)
E6-60-444R-50	E6-60-444R-20	3 (26.4)	5 (44)

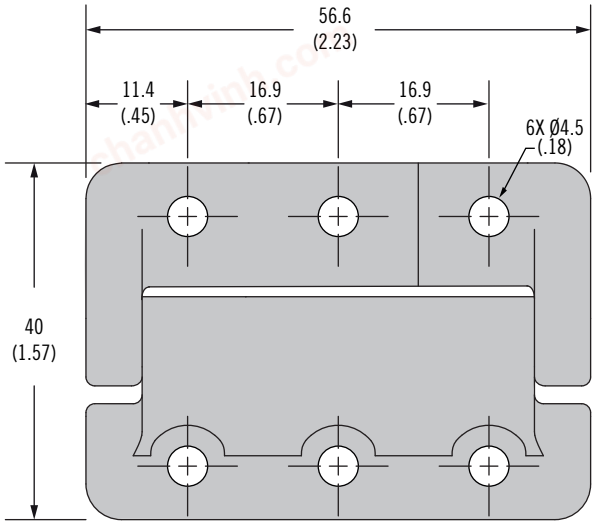
Dimensions in millimeters (inch) unless otherwise stated

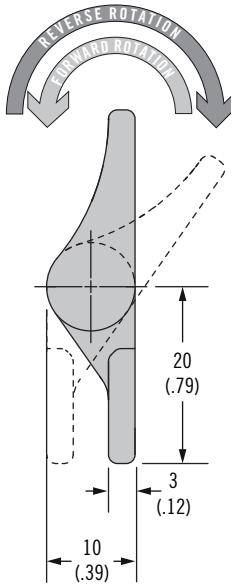
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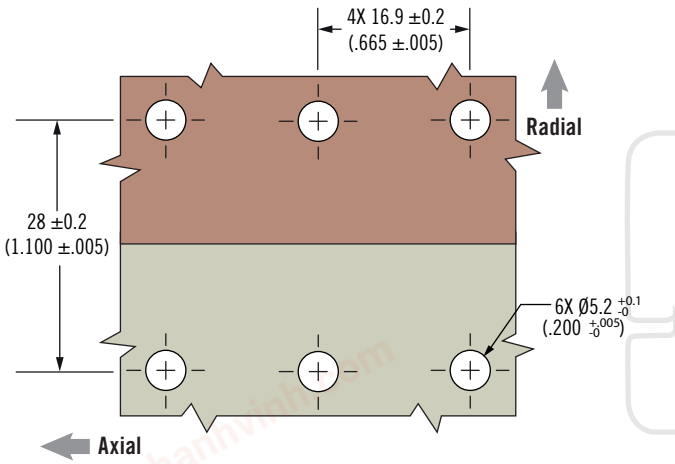
E6 Hinge

Position Control · Constant Torque











- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Aluminum alloy, black powder coat

Performance Details

Cycle performance
20,000 Cycles, see product drawing for details

Radial load:
Max. static load: 200 N (45 lbf)
Average ultimate load:
2200 N (500 lbf)

Axial load:
Max. static load: 200 N (45 lbf)
Average ultimate load:
1450 N (325 lbf)

Part Number

See table

Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
E6-10E-200-50	Free operating
E6-10E-208-50	0.9 (8)
E6-10E-212-50	1.4 (12)
E6-10E-216-50	1.8 (16)
E6-10E-220-50	2.3 (20)
E6-10E-224-50	2.7(24)
E6-10E-230-50	3.4 (30)

Asymmetric

Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10E-212F-50	1.4 (12)	0.8 (7.2)
E6-10E-216F-50	1.8 (16)	1.1 (9.6)
E6-10E-220F-50	2.3 (20)	1.4 (12)
E6-10E-224F-50	2.7 (24)	1.6 (14)
E6-10E-230F-50	3.4 (30)	2.0 (18)
E6-10E-240F-50	4.5 (40)	2.7 (24)
E6-10E-212R-50	0.8 (7.2)	1.4 (12)
E6-10E-216R-50	1.1 (9.6)	1.8 (16)
E6-10E-220R-50	1.4 (12)	2.3 (20)
E6-10E-224R-50	1.6 (14)	2.7 (24)
E6-10E-230R-50	2.0 (18)	3.4 (30)
E6-10E-240R-50	2.7 (24)	4.5 (40)

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E6 Hinge

Position control · Constant torque

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Aluminum alloy, black powder coated

Performance Details

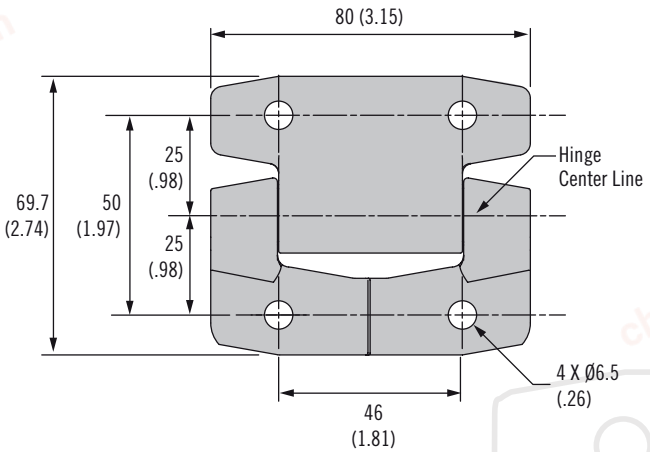
Cycle performance: 20,000 cycles within ± 20% of static torque specification

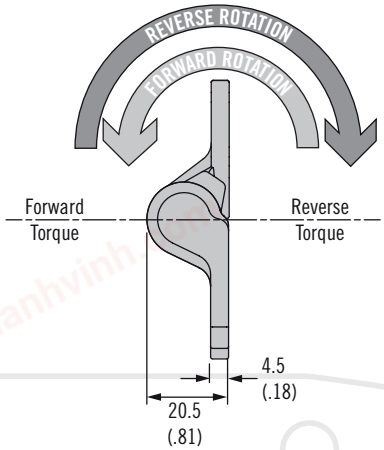
Radial load:
Max. static load: 2,000 N (450 lbf)
Average ultimate load:
4000N (900lbf)

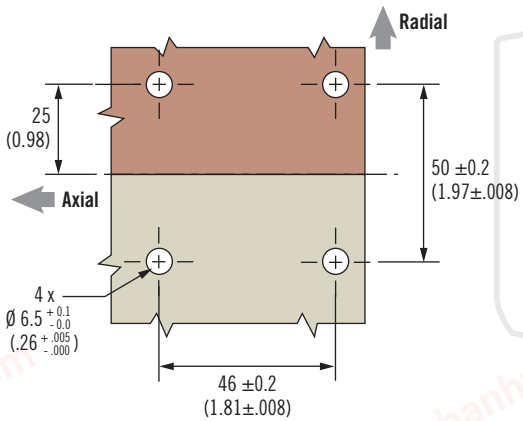
Axial load:
Max. static load: 500 N (110 lbf)
Average ultimate load:
9,000 N (2,023 lbf)

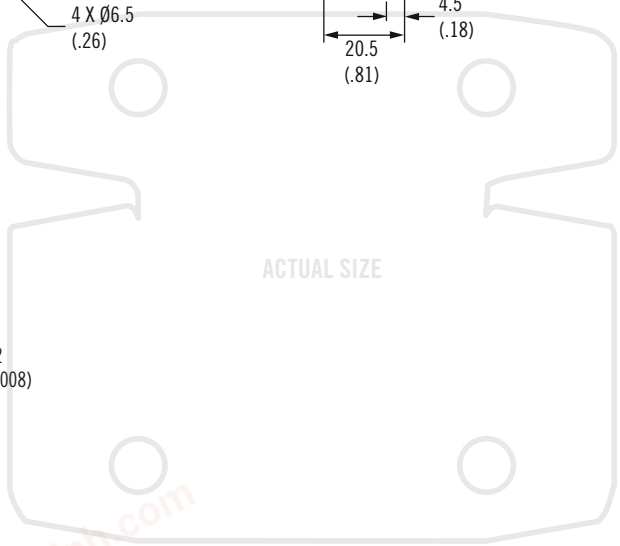
Part Number

See table









Symmetric

Part Number	Symmetric Torque N·m (in·lbf)
E6-10-620S-50	2.3 (20.0)
E6-10-635S-50	3.9 (35.0)
E6-10-650S-50	5.7 (50.0)
E6-10-665S-50	7.3 (65.0)
E6-10-680S-50	9.0 (80.0)

Asymmetric

Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10-620F-50	2.3 (20.0)	1.7 (14.9)
E6-10-635F-50	3.9 (35.0)	3.0 (26.7)
E6-10-650F-50	5.7 (50.0)	4.0 (35.7)
E6-10-665F-50	7.3 (65.0)	5.4 (47.5)
E6-10-680F-50	9.0 (80.0)	6.7 (59.4)
E6-10-695F-50	10.7 (95.0)	7.8 (68.9)
E6-10-6110F-50	12.4 (110.0)	9.0 (79.8)
E6-10-620R-50	1.7 (14.9)	2.3 (20.0)
E6-10-635R-50	3.0 (26.7)	3.9 (35.0)
E6-10-650R-50	4.0 (35.7)	5.7 (50.0)
E6-10-665R-50	5.4 (47.5)	7.3 (65.0)
E6-10-680R-50	6.7 (59.4)	9.0 (80.0)
E6-10-695R-50	7.8 (68.9)	10.7 (95.0)
E6-10-6110R-50	9.0 (79.8)	12.4 (110.0)

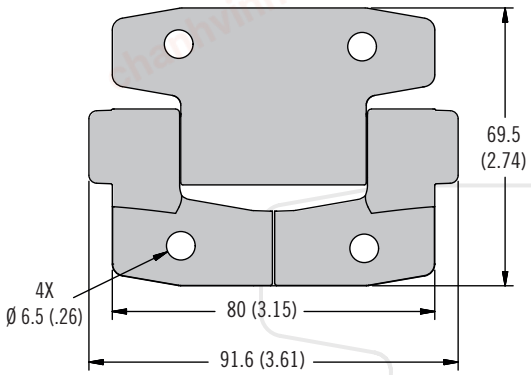
Dimensions in millimeters (inch) unless otherwise stated

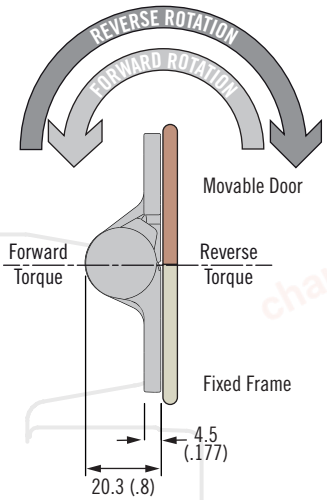
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E6 Hinge

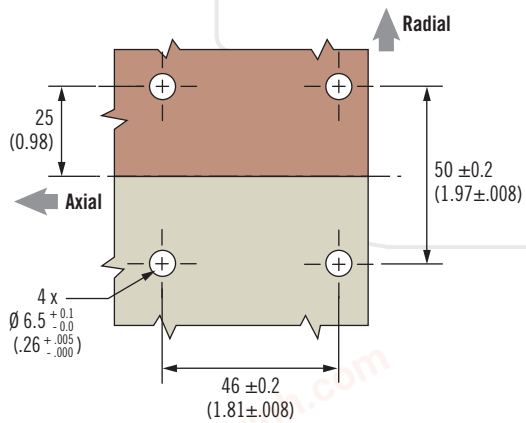
Position Control · Constant Torque · One Way

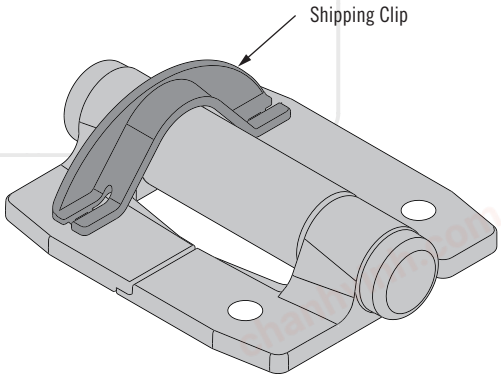






ACTUAL SIZE





Part Number	Forward Torque N·m (in·lbf)	Reverse Torque N·m (in·lbf)
E6-10-620F0-50	2.3 (20)	Free
E6-10-635F0-50	3.9 (35)	Free
E6-10-650F0-50	5.7 (50)	Free
E6-10-665F0-50	7.3 (65)	Free
E6-10-680F0-50	9.0 (80)	Free
E6-10-695F0-50	10.7 (95)	Free
E6-10-6110F0-50	12.4 (110)	Free
E6-10-620R0-50	Free	2.3 (20)
E6-10-635R0-50	Free	3.9 (35)
E6-10-650R0-50	Free	5.7 (50)
E6-10-665R0-50	Free	7.3 (65)
E6-10-680R0-50	Free	9.0 (80)
E6-10-695R0-50	Free	10.7 (95)
E6-10-6110R0-50	Free	12.4 (110)

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**
- **Minimal resistance in free direction**

Material and Finish

Aluminum alloy, black powder coated

Performance Details

Cycle performance: 20,000 Cycles, see trade drawing for details
Radial load:
Max. static load: 2000 N (450 lbf)
Average ultimate load:
3000N (675lbf)

Axial load:
Max. static load: 500 N (110 lbf)
Average ultimate load:
6000 N (1300 lbf)

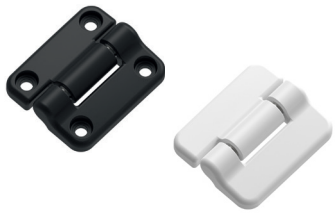
Installation Notes

Do not remove shipping clip until hinge is secured by first pair of screws. Discard or recycle shipping clip when removed.

Part Number

See table

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E6 Hinge

Position control · Constant torque · Plastic

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**
- **Corrosion resistant**
- **Multiple mounting options**
- **Concealed mounting hardware**

Material and Finish

Nylon, steel, anodized aluminum

Performance Details

Cycle performance
20,000 cycles, see trade drawing for details

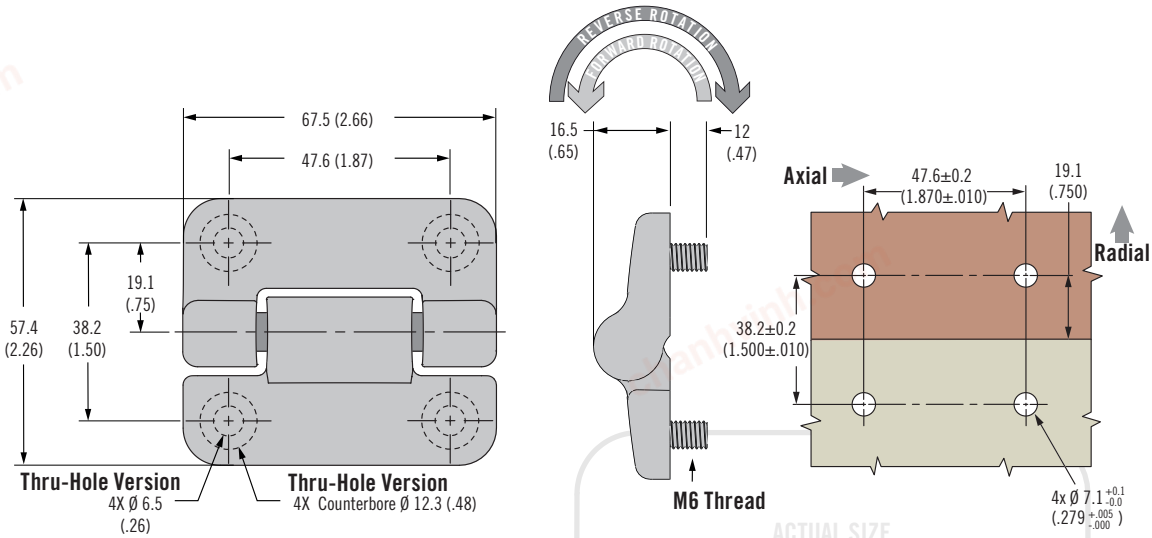
Radial load:
Max. static load: 200 N (45 lbf)
Average ultimate load:
1500 N (335 lbf)

Axial load:
Max. static load: 200 N (45 lbf)
Average ultimate load:
2500 N (560 lbf)

Part Number

See table

XX	Color
20	Black
10	White



50 Series: Constant torque mechanism providing customizable, precise operating efforts

Symmetric Torque Versions		
Part Number		Static Torque (forward and reverse) N•m (in•lbf)
Thru-Hole Mounting	Thread Stud Mounting	
E6-50-500-XX	E6-55-500-XX	Free Operating
E6-50-535S-XX	E6-55-535S-XX	3.95 (35)
E6-50-530S-XX	E6-55-530S-XX	3.39 (30)
E6-50-525S-XX	E6-55-525S-XX	2.82 (25)
E6-50-520S-XX	E6-55-520S-XX	2.26 (20)
E6-50-515S-XX	E6-55-515S-XX	1.69 (15)

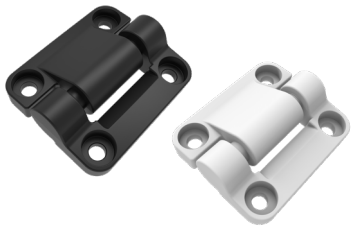
Asymmetric Torque Versions			
Part Number		Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
Thru-Hole Mounting	Thread Stud Mounting		
E6-50-540F-XX	E6-55-540F-XX	4.52 (40)	3.16 (28)
E6-50-535F-XX	E6-55-535F-XX	3.95 (35)	2.77 (24.5)
E6-50-530F-XX	E6-55-530F-XX	3.39 (30)	2.37 (21)
E6-50-525F-XX	E6-55-525F-XX	2.82 (25)	1.98 (17.5)
E6-50-520F-XX	E6-55-520F-XX	2.26 (20)	1.58 (14)
E6-50-515F-XX	E6-55-515F-XX	1.69 (15)	1.19 (10.5)
E6-50-540R-XX	E6-55-540R-XX	3.16 (28)	4.52 (40)
E6-50-535R-XX	E6-55-535R-XX	2.77 (24.5)	3.95 (35)
E6-50-530R-XX	E6-55-530R-XX	2.37 (21)	3.39 (30)
E6-50-525R-XX	E6-55-525R-XX	1.98 (17.5)	2.82 (25)
E6-50-520R-XX	E6-55-520R-XX	1.58 (14)	2.26 (20)
E6-50-515R-XX	E6-55-515R-XX	1.19 (10.5)	1.69 (15)

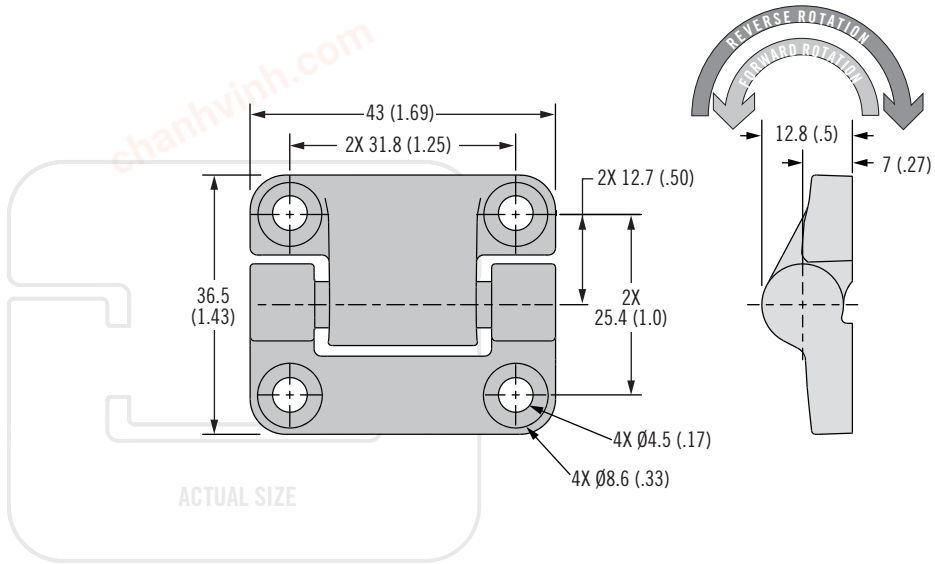
Dimensions in millimeters (inch) unless otherwise stated

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E6 Hinge

Position control · Constant torque · Plastic





- **Holds in every position**
- **No adjustment required**
- **Long cycle life**
- **Corrosion resistant**

Material and Finish

50 Series: Nylon, steel, anodized aluminum

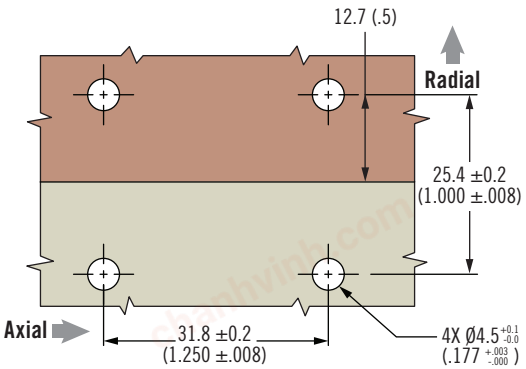
Performance Details

Cycle performance
20,000 cycles, see trade drawing for details

Part Number

See table

50 Series: Constant torque mechanism providing customizable, precise operating efforts



Symmetric Torque Versions	
Part Number Thru-Hole Mounting	Static Torque (forward and reverse) N•m (in•lbf)
E6-50-314S-XX	1.58 (14)
E6-50-310S-XX	1.13 (10)
E6-50-308S-XX	0.90 (8)
E6-50-304S-XX	0.45 (4)

Asymmetric Torque Versions		
Part Number Thru-Hole Mounting	Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
E6-50-316F-XX	1.81 (16)	1.27 (11.2)
E6-50-312F-XX	1.36 (12)	0.95 (8.4)
E6-50-308F-XX	0.90 (8)	0.63 (5.6)
E6-50-304F-XX	0.45 (4)	0.32 (2.8)
E6-50-316R-XX	1.27 (11.2)	1.81 (16)
E6-50-312R-XX	0.95 (8.4)	1.36 (12)
E6-50-308R-XX	0.63 (5.6)	0.90 (8)
E6-50-304R-XX	0.32 (2.8)	0.45 (4)

XX	Color
20	Black
10	White

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ST-8A Hinge

Position control · Constant torque

- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Zinc alloy, black paint

Performance Details

Cycle performance
20,000 cycles within ±20% of static torque specification

Installation Notes

Thread stud install with M3 nuts (not supplied)

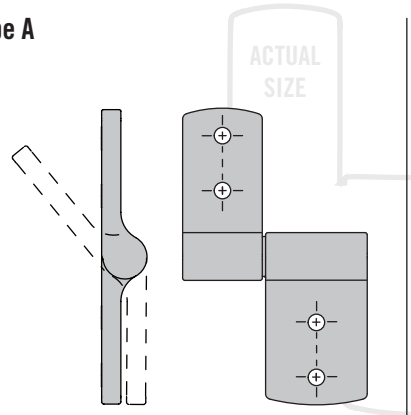
Thru hole install with M3 (No. 4) screws (not supplied)

To ensure proper function, assembly must include a minimum of one Type **A** and one Type **B** hinge

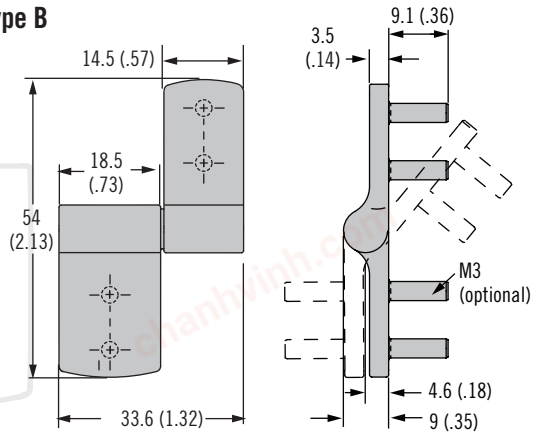
Part Number

See table

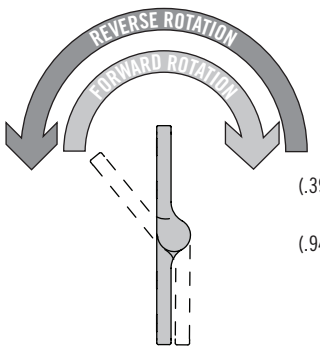
Type A



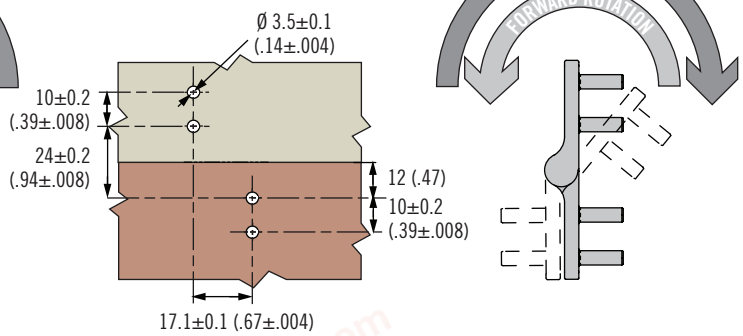
Type B



Thru Hole Version Shown



Thread Stud Version Shown



Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N•m (in•lbf)
M3 Thread Stud		Thru Hole		
Type A	Type B	Type A	Type B	
ST-8A1-40SA-50	ST-8A1-40SB-50	ST-8A-40SA-50	ST-8A-40SB-50	0.45 (4)
ST-8A1-60SA-50	ST-8A1-60SB-50	ST-8A-60SA-50	ST-8A-60SB-50	0.68 (6)
ST-8A1-80SA-50	ST-8A1-80SB-50	ST-8A-80SA-50	ST-8A-80SB-50	0.9 (8)

Asymmetric Torque Version					
Part Number				Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
M3 Thread Stud		Thru Hole			
Type A	Type B	Type A	Type B		
ST-8A1-40FA-50	ST-8A1-40FB-50	ST-8A-40FA-50	ST-8A-40FB-50	0.45 (4)	0.27 (2.4)
ST-8A1-60FA-50	ST-8A1-60FB-50	ST-8A-60FA-50	ST-8A-60FB-50	0.68 (6)	0.41 (3.6)
ST-8A1-80FA-50	ST-8A1-80FB-50	ST-8A-80FA-50	ST-8A-80FB-50	0.90 (8)	0.54 (4.8)
ST-8A1-100FA-50	ST-8A1-100FB-50	ST-8A-100FA-50	ST-8A-100FB-50	1.13 (10)	0.68 (6)
ST-8A1-40RA-50	ST-8A1-40RB-50	ST-8A-40RA-50	ST-8A-40RB-50	0.27 (2.4)	0.45 (4)
ST-8A1-60RA-50	ST-8A1-60RB-50	ST-8A-60RA-50	ST-8A-60RB-50	0.41 (3.6)	0.68 (6)
ST-8A1-80RA-50	ST-8A1-80RB-50	ST-8A-80RA-50	ST-8A-80RB-50	0.54 (4.8)	0.9 (8)
ST-8A1-100RA-50	ST-8A1-100RB-50	ST-8A-100RA-50	ST-8A-100RB-50	0.68 (6)	1.13 (10)

Dimensions in millimeters (inch) unless otherwise stated

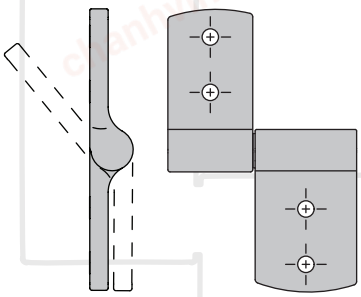
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ST-11A Hinge

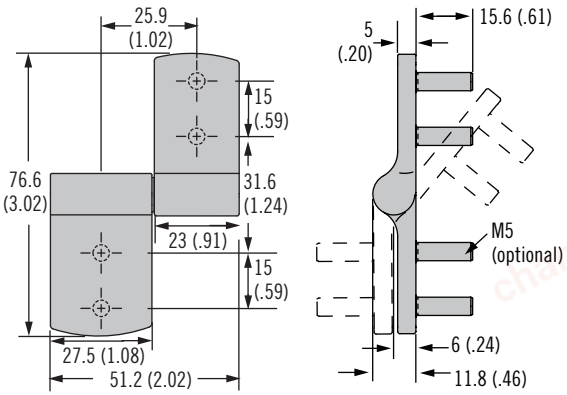
Position control · Constant torque



Type A

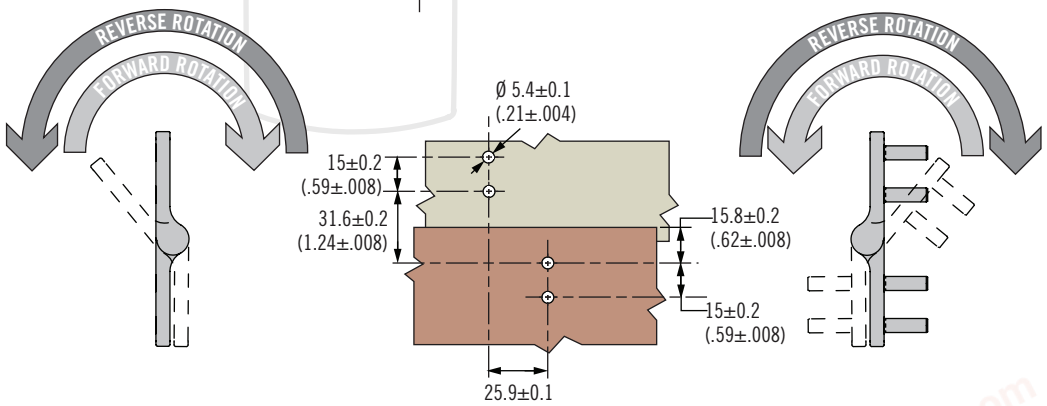


Type B



Thru Hole Version Shown

Thread Stud Version Shown



- **Holds in every position**
- **No adjustment required**
- **Long cycle life**

Material and Finish

Zinc alloy, black paint

Performance Details

Cycle performance
20,000 cycles within ±20% of static torque specification

Installation Notes

Thread stud install with M5 nuts (not supplied)

Thru hole install with M5 (No. 10) screws (not supplied)

To ensure proper function, assembly must include a minimum of one Type **A** and one Type **B** hinge

Part Number

See table

Symmetric Torque Version				
Part Number				Static Torque (forward and reverse) N•m (in•lbf)
M5 Thread Stud		Thru Hole		
Type A	Type B	Type A	Type B	
ST-11A1-140SA-50	ST-11A1-140SB-50	ST-11A-140SA-50	ST-11A-140SB-50	1.58 (14)
ST-11A1-200SA-50	ST-11A1-200SB-50	ST-11A-200SA-50	ST-11A-200SB-50	2.26 (20)
ST-11A1-260SA-50	ST-11A1-260SB-50	ST-11A-260SA-50	ST-11A-260SB-50	2.94 (26)

Asymmetric Torque Version					
Part Number				Forward Torque N•m (in•lbf)	Reverse Torque N•m (in•lbf)
M5 Thread Stud		Thru Hole			
Type A	Type B	Type A	Type B		
ST-11A1-140FA-50	ST-11A1-140FB-50	ST-11A-140FA-50	ST-11A-140FB-50	1.58 (14)	0.95 (8.4)
ST-11A1-200FA-50	ST-11A1-200FB-50	ST-11A-200FA-50	ST-11A-200FB-50	2.26 (20)	1.36 (12)
ST-11A1-260FA-50	ST-11A1-260FB-50	ST-11A-260FA-50	ST-11A-260FB-50	2.94 (26)	1.76 (15.6)
ST-11A1-320FA-50	ST-11A1-320FB-50	ST-11A-320FA-50	ST-11A-320FB-50	3.62 (32)	2.17 (19.2)
ST-11A1-140RA-50	ST-11A1-140RB-50	ST-11A-140RA-50	ST-11A-140RB-50	0.95 (8.4)	1.58 (14)
ST-11A1-200RA-50	ST-11A1-200RB-50	ST-11A-200RA-50	ST-11A-200RB-50	1.36 (12)	2.26 (20)
ST-11A1-260RA-50	ST-11A1-260RB-50	ST-11A-260RA-50	ST-11A-260RB-50	1.76 (15.6)	2.94 (26)
ST-11A1-320RA-50	ST-11A1-320RB-50	ST-11A-320RA-50	ST-11A-320RB-50	2.17 (19.2)	3.62 (32)