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MATERIAL

High-resilience polyamide based (PA) technopolymer, black colour, matte finish. Grey RAL 7040 (C33) only for CFA-SH execution.

ROTATING PIN

AISI 303 stainless steel.

STANDARD EXECUTIONS

- **CFA-B:** nickel-plated brass bosses with threaded hole.
- **CFA-p:** nickel-plated steel threaded studs.
- **CFA-SH:** pass-through holes for countersunk head screws.
- **CFA-TI-SH:** pass-through holes for countersunk head screws and rear housing to accommodate the head of threaded inserts.
- **CFA-CH:** pass-through holes for cylindrical head screws.
- **CFA-B-p:** nickel-plated brass bosses with threaded hole and nickel-plated steel threaded studs.
- **CFA-B-SH:** nickel-plated brass bosses with threaded hole and pass-through holes for countersunk head screws.
- **CFA-B-CH:** nickel-plated brass bosses with threaded hole and pass-through holes for cylindrical head screws.
- **CFA-p-SH:** nickel-plated steel threaded studs pass-through holes for countersunk head screws.
- **CFA-p-CH:** nickel-plated steel threaded studs and pass-through holes for cylindrical head screws.

ROTATION ANGLE (APPROXIMATE VALUE)

Max 215° (-35° and +180° being 0° the condition where the two interconnected surfaces are on the same plane).

Do not exceed the rotation angle limit so as not to prejudice the hinge mechanical performance.

To choose the convenient type and the right number of hinges for your application, see the Guidelines (see page 1298).

EXECUTION CFK.

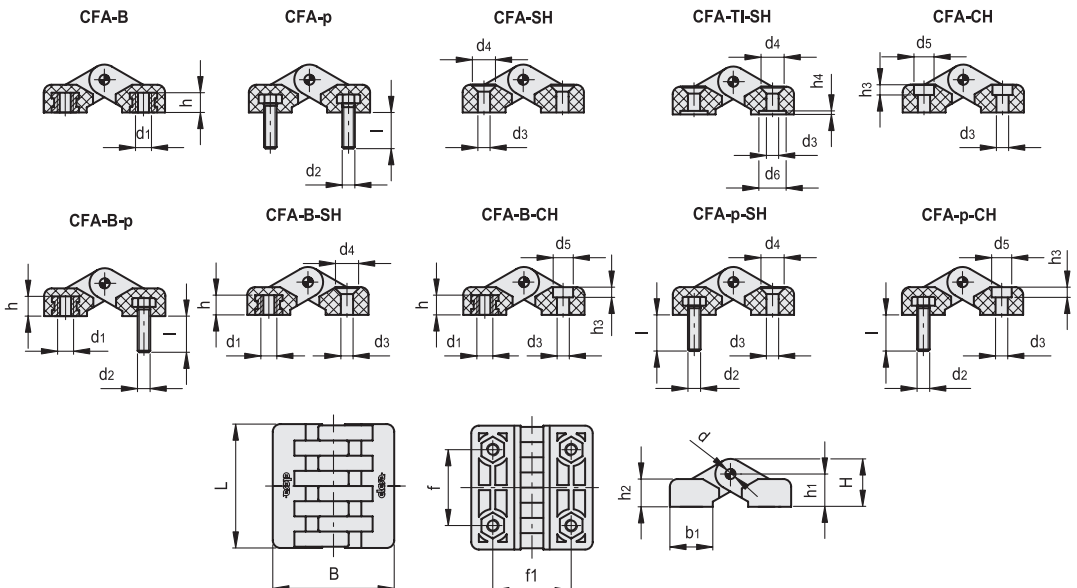
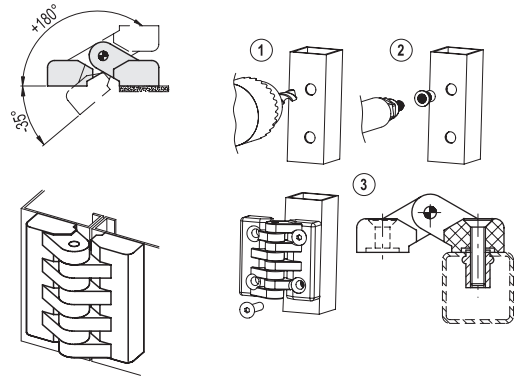
False hinge made up of a single body without rotation pin. It can be used for blocking fixed panels, when you want to obtain the same general aesthetical effect.

ASSEMBLY INSTRUCTIONS FOR CFA-TI-SH

1. Drill a hole in the door / doorframe with a diameter corresponding to the threaded insert used.
2. Fix the threaded insert on the door / doorframe with a riveter.
3. Fit the hinge on the door / doorframe tightening the screw into the threaded insert.



FMA design



Hinges and accessories

CFA-B

| Code | Description | L | B | d1 | h | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | C# [Nm] | △ |
|--------|--------------|------|------|-----|-----|--------|----------|----|-----|------|----|---|------------|-----|
| 422391 | CFA.40 B-M4 | 39.5 | 38.5 | M4 | 6.5 | 25 | 25 | 14 | 9.5 | 9.5 | 14 | 3 | 5 | 23 |
| 422111 | CFA.49 B-M5 | 49.5 | 48 | M5 | 8.5 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5 | 39 |
| 422113 | CFA.49 B-M6 | 49.5 | 48 | M6 | 8 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5 | 38 |
| 422211 | CFA.65 B-M6 | 65 | 64 | M6 | 9 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 5 | 85 |
| 422311 | CFA.97 B-M10 | 96.5 | 97.5 | M10 | 15 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 5 | 306 |

CFA-p

| Code | Description | L | B | d2 | l | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | C# [Nm] | △ |
|--------|-----------------|------|------|-----|----|--------|----------|----|----|------|----|---|------------|-----|
| 422121 | CFA.49 p-M5x14 | 49.5 | 48 | M5 | 14 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5 | 45 |
| 422221 | CFA.65 p-M6x18 | 65 | 64 | M6 | 18 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 5 | 90 |
| 422321 | CFA.97 p-M10x20 | 96.5 | 97.5 | M10 | 20 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 5 | 330 |

CFA-SH

| Code | Description | Code | Description | L | B | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | d3 | d4 | C# [Nm] | △ |
|--------|--------------|------------|------------------|------|------|--------|----------|----|-----|------|----|---|------|------|------------|-----|
| 422411 | CFA.40 SH-4 | 422411-C33 | CFA.40 SH-4-C33 | 39.5 | 38.5 | 25 | 25 | 14 | 9.5 | 9.5 | 14 | 3 | 4.5 | 8.5 | 1 | 14 |
| 422131 | CFA.49 SH-5 | 422131-C33 | CFA.49 SH-5-C33 | 49.5 | 48 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5.5 | 10 | 2 | 29 |
| 422231 | CFA.65 SH-6 | 422231-C33 | CFA.65 SH-6-C33 | 65 | 64 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 6.5 | 12.5 | 3 | 62 |
| 422331 | CFA.97 SH-10 | 422331-C33 | CFA.97 SH-10-C33 | 96.5 | 97.5 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 10.5 | 20 | 5 | 221 |

CFA-TI-SH

| Code | Description | L | B | f±0.25 | f1 ±0.25 | H | h1 | h2 | h4 | b1 | d | d3 | d4 | d6 | C# [Nm] | △ |
|--------|----------------|------|------|--------|----------|----|-----|------|-----|----|---|-----|------|----|------------|----|
| 422416 | CFA.40 TI-SH-4 | 39.5 | 38.5 | 25 | 25 | 14 | 9.5 | 9.5 | 1.3 | 14 | 3 | 4.5 | 8.5 | 10 | 1 | 14 |
| 422136 | CFA.49 TI-SH-5 | 49.5 | 48 | 30 | 31 | 19 | 13 | 11 | 1.5 | 17 | 4 | 5.5 | 10 | 11 | 2 | 29 |
| 422237 | CFA.65 TI-SH-6 | 65 | 64 | 40 | 40 | 23 | 15 | 13.5 | 1.8 | 24 | 5 | 6.5 | 12.5 | 13 | 3 | 62 |

CFA-CH

| Code | Description | L | B | f±0.25 | f1 ±0.25 | H | h1 | h2 | h3 | b1 | d | d3 | d5 | C# [Nm] | △ |
|--------|--------------|------|------|--------|----------|----|-----|------|------|----|---|------|-----|------------|-----|
| 422412 | CFA.40 CH-4 | 39.5 | 38.5 | 25 | 25 | 14 | 9.5 | 9.5 | 4.5 | 14 | 3 | 4.5 | 8.5 | 1 | 14 |
| 422132 | CFA.49 CH-5 | 49.5 | 48 | 30 | 31 | 19 | 13 | 11 | 5.5 | 17 | 4 | 5.5 | 10 | 2 | 29 |
| 422232 | CFA.65 CH-6 | 65 | 64 | 40 | 40 | 23 | 15 | 13.5 | 6.5 | 24 | 5 | 6.5 | 11 | 5 | 62 |
| 422332 | CFA.97 CH-10 | 96.5 | 97.5 | 59.5 | 62.5 | 35 | 23 | 20.5 | 10.5 | 35 | 8 | 10.5 | 17 | 5 | 221 |

CFA-B-p

| Code | Description | L | B | d1 | h | d2 | l | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | C# [Nm] | △ |
|--------|-----------------------|------|------|-----|------|-----|----|--------|----------|----|----|------|----|---|------------|-----|
| 422141 | CFA.49 B-M5-p-M5x14 | 49.5 | 48 | M5 | 8.5 | M5 | 14 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5 | 42 |
| 422241 | CFA.65 B-M6-p-M6x18 | 65 | 64 | M6 | 10.5 | M6 | 18 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 5 | 88 |
| 422341 | CFA.97 B-M10-p-M10x20 | 96.5 | 97.5 | M10 | 15 | M10 | 20 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 5 | 318 |

CFA-B-SH

| Code | Description | L | B | d1 | h | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | d3 | d4 | C [Nm] B# | C [Nm] SH# | △ |
|--------|--------------------|------|------|-----|------|--------|----------|----|----|------|----|---|------|------|-----------------|------------------|-----|
| 422151 | CFA.49 B-M5-SH-5 | 49.5 | 48 | M5 | 8.5 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5.5 | 10 | 5 | 2 | 34 |
| 422251 | CFA.65 B-M6-SH-6 | 65 | 64 | M6 | 10.5 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 6.5 | 12.5 | 5 | 3 | 74 |
| 422351 | CFA.97 B-M10-SH-10 | 96.5 | 97.5 | M10 | 15 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 10.5 | 20 | 5 | 5 | 264 |

CFA-B-CH

| Code | Description | L | B | d1 | h | f±0.25 | f1 ±0.25 | H | h1 | h2 | h3 | b1 | d | d3 | d5 | C [Nm] B# | C [Nm] CH# | △ |
|--------|--------------------|------|------|-----|------|--------|----------|----|----|------|------|----|---|------|----|-----------------|------------------|-----|
| 422152 | CFA.49 B-M5-CH-5 | 49.5 | 48 | M5 | 8.5 | 30 | 31 | 19 | 13 | 11 | 5.5 | 17 | 4 | 5.5 | 10 | 5 | 2 | 34 |
| 422252 | CFA.65 B-M6-CH-6 | 65 | 64 | M6 | 10.5 | 40 | 40 | 23 | 15 | 13.5 | 6.5 | 24 | 5 | 6.5 | 11 | 5 | 5 | 74 |
| 422352 | CFA.97 B-M10-CH-10 | 96.5 | 97.5 | M10 | 15 | 59.5 | 62.5 | 35 | 23 | 20.5 | 10.5 | 35 | 8 | 10.5 | 17 | 5 | 5 | 264 |

Suggested tightening torque for assembly screws.



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CFA-p-SH

| Code | Description | L | B | d2 | l | f±0.25 | f1 ±0.25 | H | h1 | h2 | b1 | d | d3 | d4 | C [Nm] p# | C [Nm] SH# | Δ |
|--------|-----------------------|------|------|-----|----|--------|----------|----|----|------|----|---|------|------|-----------|------------|-----|
| 422161 | CFA.49 p-M5x14-SH-5 | 49.5 | 48 | M5 | 14 | 30 | 31 | 19 | 13 | 11 | 17 | 4 | 5.5 | 10 | 5 | 2 | 37 |
| 422261 | CFA.65 p-M6x18-SH-6 | 65 | 64 | M6 | 18 | 40 | 40 | 23 | 15 | 13.5 | 24 | 5 | 6.5 | 12.5 | 5 | 3 | 76 |
| 422361 | CFA.97 p-M10x20-SH-10 | 96.5 | 97.5 | M10 | 20 | 59.5 | 62.5 | 35 | 23 | 20.5 | 35 | 8 | 10.5 | 20 | 5 | 5 | 276 |

CFA-p-CH

| Code | Description | L | B | d2 | l | f±0.25 | f1 ±0.25 | H | h1 | h2 | h3 | b1 | d | d3 | d5 | C [Nm] p# | C [Nm] CH# | Δ |
|--------|-----------------------|------|------|-----|----|--------|----------|----|----|------|------|----|---|------|----|-----------|------------|-----|
| 422162 | CFA.49 p-M5x14-CH-5 | 49.5 | 48 | M5 | 14 | 30 | 31 | 19 | 13 | 11 | 5.5 | 17 | 4 | 5.5 | 10 | 5 | 2 | 37 |
| 422262 | CFA.65 p-M6x18-CH-6 | 65 | 64 | M6 | 18 | 40 | 40 | 23 | 15 | 13.5 | 6.5 | 24 | 5 | 6.5 | 11 | 5 | 5 | 76 |
| 422362 | CFA.97 p-M10x20-CH-10 | 96.5 | 97.5 | M10 | 20 | 59.5 | 62.5 | 35 | 23 | 20.5 | 10.5 | 35 | 8 | 10.5 | 17 | 5 | 5 | 276 |

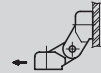
Suggested tightening torque for assembly screws.

AXIAL STRESS

RADIAL STRESS

90° ANGLED STRESS

Resistance tests



| Description | Maximum working load Ea [N] | Load at breakage Ra [N] | Maximum working load Er [N] | Load at breakage Rr [N] | Maximum working load E90 [N] | Load at breakage R90 [N] |
|-----------------------|-----------------------------|-------------------------|-----------------------------|-------------------------|------------------------------|--------------------------|
| CFA.40 B-M4 | 200 | 2050 | 240 | 2220 | 100 | 730 |
| CFA.40 SH-4 | 130 | 2080 | 290 | 2030 | 280 | 1520 |
| CFA.40 CH-4 | 137 | 1800 | 230 | 1760 | 180 | 1330 |
| CFA.49 B-M5 | 400 | 3770 | 440 | 3070 | 170 | 1470 |
| CFA.49 B-M6 | 330 | 3250 | 470 | 3250 | 110 | 1540 |
| CFA.49 p-M5x14 | 370 | 3070 | 360 | 1970 | 200 | 1680 |
| CFA.49 SH-5 | 300 | 2960 | 310 | 2880 | 320 | 2490 |
| CFA.49 CH-5 | 360 | 3080 | 310 | 2530 | 250 | 1620 |
| CFA.49 B-M5-p-M5x14 | 370 | 3070 | 360 | 1970 | 200 | 1470 |
| CFA.49 B-M5-SH-5 | 400 | 2960 | 280 | 2880 | 170 | 1470 |
| CFA.49 B-M5-CH-5 | 360 | 3080 | 320 | 2530 | 170 | 1470 |
| CFA.49 p-M5x14-SH-5 | 370 | 2960 | 280 | 1970 | 200 | 1680 |
| CFA.49 p-M5x14-CH-5 | 360 | 3070 | 320 | 1970 | 200 | 1620 |
| CFA.65 B-M6 | 640 | 4570 | 690 | 5670 | 220 | 2280 |
| CFA.65 p-M6x18 | 510 | 5890 | 460 | 6620 | 220 | 3190 |
| CFA.65 SH-6 | 520 | 4760 | 720 | 6270 | 240 | 4180 |
| CFA.65 CH-6 | 510 | 5280 | 490 | 5790 | 260 | 3190 |
| CFA.65 B-M6-p-M6x18 | 510 | 4570 | 460 | 5670 | 220 | 2280 |
| CFA.65 B-M6-SH-6 | 640 | 4570 | 690 | 5670 | 220 | 2280 |
| CFA.65 B-M6-CH-6 | 510 | 4570 | 490 | 5670 | 220 | 2280 |
| CFA.65 p-M6x18-SH-6 | 510 | 4760 | 460 | 6270 | 220 | 3190 |
| CFA.65 p-M6x18-CH-6 | 510 | 5280 | 460 | 5790 | 220 | 3190 |
| CFA.97 B-M10 | 970 | 7660 | 2120 | 17940 | 590 | 5210 |
| CFA.97 p-M10x20 | 890 | 5950 | 1730 | 16190 | 460 | 3690 |
| CFA.97 SH-10 | 1110 | 6730 | 1230 | 10460 | 510 | 4100 |
| CFA.97 CH-10 | 1050 | 4860 | 2060 | 13670 | 540 | 4760 |
| CFA.97 B-M10-p-M10x20 | 890 | 5950 | 1730 | 16190 | 460 | 3690 |
| CFA.97 B-M10-SH-10 | 970 | 6730 | 1230 | 10460 | 510 | 4110 |
| CFA.97 B-M10-CH-10 | 970 | 4860 | 2060 | 13670 | 540 | 4760 |
| CFA.97 p-M10x20-SH-10 | 890 | 5950 | 1230 | 10460 | 460 | 3690 |
| CFA.97 p-M10x20-CH-10 | 890 | 4860 | 1730 | 13670 | 460 | 3690 |