

Hinges

Technopolymer

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.

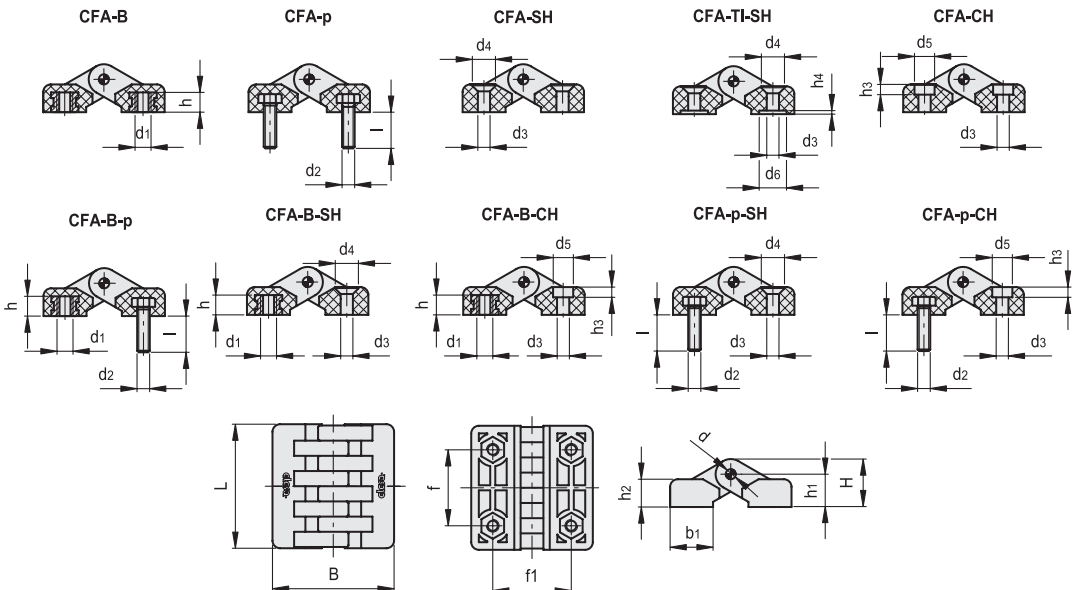
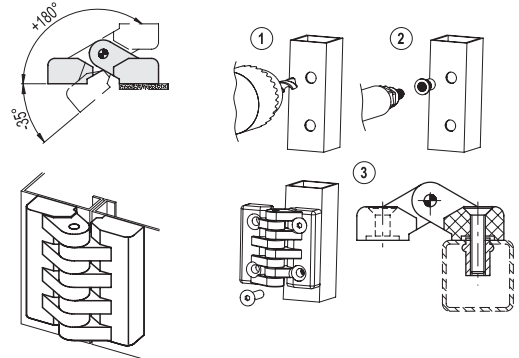
To choose the convenient type and the right number of hinges for your application, see the Guidelines (on page 1368).

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.



FMMdesign



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	L	B	f±0.25	f1±0.25	H	h1	h2	b1	d	d3	d4	C# [Nm]	⚖️
422411	CFA.40 SH-4	39.5	38.5	25	25	14	9.5	9.5	14	3	4.5	8.5	1	14
422131	CFA.49 SH-5	49.5	48	30	31	19	13	11	17	4	5.5	10	2	29
422231	CFA.65 SH-6	65	64	40	40	23	15	13.5	24	5	6.5	12.5	3	62
422331	CFA.97 SH-10	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	d6	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	10	25	25	14	9.5	9.5	1.3	14	3	4.5	8.5	-	1	14
422136	CFA.49 TI-SH-5	49.5	48	11	30	31	19	13	11	1.5	17	4	5.5	10	11	2	29
422237	CFA.65 TI-SH-6	65	64	13	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.



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

CFA-SH-C33

Code	Description	L	B	f±0.25	f1±0.25	H	h1	h2	b1	d	d3	d4	C# [Nm]	Δ
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-C33	CFA.49 SH-5-C33	49.5	48	30	31	19	13	11	17	4	5.5	10	2	29
422231-C33	CFA.65 SH-6-C33	65	64	40	40	23	15	13.5	24	5	6.5	12.5	3	62
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

Suggested tightening torque for assembly screws.

Index C33: hinge RAL 7040 grey colour.

Resistance tests	AXIAL STRESS		RADIAL STRESS		90° ANGLED STRESS	
	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]
Description						
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

