Protection Selection Guide

Through its portfolio, Crouzet is proud to contribute towards the “greener aircraft”.
This is illustrated by:

- Our permanent quest for more compact and lighter solutions
- Our product design cycles that are environment aware
- Our manufacturing plants that are certified ISO14001

All the above contribute to reducing CO2 emissions.

CHOICE BY STANDARD/RATING

	AS5692	EN2495		EN2592		EN2665		EN2794		EN2995	
Rate (A)	single	Code M	Code U	Code M	Code U	003	004	003	004	004	005
	DPMU	DMPU	DPMU	DMPT	DPMT	DGMT	DGMT	DGMU	DGMU	DPMU	DPMU
1		84402001	84401001	84412001	84411001					84401801	84401601
2		84402002	84401002	84412002	84411002					84401802	84401602
2,5		84402012	84401012	84412012	84411012					84401812	84401612
3	84401503	84402003	84401003	84412003	84411003					84401803	84401603
4				84412004							
5	84401505	84402005	84401005	84412005	84411005					84401805	84401605
7,5	84401507	84402007	84401007	84412007	84411007					84401807	84401607
10	84401510	84402010	84401010	84412010	84411010					84401810	84401610
15	84401515	84402015	84401015	84412015	84411015	84313015		84306015		84401815	84401615
20	84401520	84402020	84401020	84412020	84411020	84313020	84313036	84306020	84306016	84401820	84401620
25	84401525	84402025	84401025	84412025	84411025	84313025	84313037	84306025	84306017	84401825	84401625
30								84306030			
35						84313035	84313038	84306035	84306018		
41						84313041					
50						84313050	84313058	84306050	84306019		
Page	32	18	18	20	20	24	24	22	22	18	18

	EN2996		EN3661			EN3662			EN3773	EN3794	
Rate (A)	004	005	004	005	006	004	005	006	004	003	004
	DPMT	DPMT	DGMU	DGMU	DGMU	DGMT	DGMT	DGMT	DPMU	DPMT	DPMT
1	84411801	84411601							84401050	84413001	84411001
2	84411802	84411602							84401051	84413002	84411002
2,5	84411812	84411612							84401052	84413012	84411012
3		84411603							84401053	84413003	84411003
5	84411805	84411605							84401054	84413005	84411005
7,5	84411807	84411607							84401055	84413007	84411007
10	84411810	84411610							84401056	84413010	84411010
15	84411815	84411615				84313315			84401057	84413015	84411015
20	84411820	84411620	84306320	84306620	84306655	84313320	84313620	84313631	84401058	84413020	84411020
25	84411825	84411625	84306325	84306625	84306653	84313325	84313625	84313632	84401059	84413025	84411025
35			84306335	84306635	84306654	84313335	84313635	84313633			
50			84306350	84306650	84306652	84313350	84313650	84313634			
Page	20	20	22	22	22	24	24	24	18	20	20

	GAM TI-TII-40 / Air 6.625-403	"LN29886 / LN29887"	"MS3320 AS33201"	"MS3320 AS33201 QPL"	"MS14154 AS14154A"	"MS14154 AS14154A QPL"	MS26574	VG 95345-TEIL 6		VG 95345-TEIL 11	
Rate (A)	DPMU		DPMU	DPMU	DMPT	DMPT	DMPU	DPMU	DPMU	DPMT	DPMT
1	84405001		84400001	84400048	84410001	84414001	84406001	84402001	84402801	84412001	84412801
2	84405002		84400002	84400049	84410002	84414002	84406002	84402002	84402802	84412002	84412802
2,5	84405012		84400012	84400050	84410012	84414012	84406012	84402012	84402812	84412012	84412812
3	84405003		84400003	84400051	84410003	84414003	84406003	84402003	84402803	84412003	84412803
4				84400061						84412004	84412804
5	84405005		84400005	84400052	84410005	84414005	84406005	84402005	84402805	84412005	84412805
7,5	84405007	contact CROUZET	84400007	84400053	84410007	84414007	84406007	84402007	84402807	84412007	84412807
10	84405010		84400010	84400054	84410010	84414010	84406010	84402010	84402810	84412010	84412810
15	84405015		84400015	84400055	84410015	84414015	84406015	84402015	84402815	84412015	84412815
20	84405020		84400020	84400056	84410020	84414020	84406020	84402020	84402820	84412020	84412820
25	84405025		84400025		84410025		84406025	84402025	84402825	84412025	84412825
30			84400060						84402830		
Page	30		18	18	20	20	26	18	18	20	20

Small Model Circuit Breaker Single Pole

REFERENCES

Rating	No signal contact							Non polarised / polarised signal contact		
1 A	84 400 001	84 400 048	84 400 148	84 400 248	84 401 001	84 401 050	84 402 001	84 400 801/601	84 401 801/601	84 402 801/601
2 A	84 400 002	84 400 049	84 400 149	84 400 249	84 401 002	84 401 051	84 402 002	84 400 802/602	84 401 802/602	84 402 802/602
2.5 A	84 400 012	84 400 050	84 400 150	84 400 250	84 401 012	84 401 052	84 402 012	84 400 812/612	84 401 812/612	84 402 812/612
3 A	84 400 003	84 400 051	84 400 151	84 400 251	84 401 003	84 401 053	84 402 003	84 400 803/603	84 401 803/603	84 402 803/603
4 A		84 400 061	84 400 161	84 400 261						
5 A	84 400 005	84 400 052	84 400 152	84 400 252	84 401 005	84 401 054	84 402 005	84 400 805/605	84 401 805/605	84 402 805/605
6 A							84 402 006			
7.5 A	84 400 007	84 400 053	84 400 153	84 400 253	84 401 007	84 401 055	84 402 007	84 400 807/607	84 401 807/607	84 402 807/607
10 A	84 400 010	84 400 054	84 400 154	84 400 254	84 401 010	84 401 056	84 402 010	84 400 810/610	84 401 810/610	84 402 810/610
15 A	84 400 015	84 400 055	84 400 155	84 400 255	84 401 015	84 401 057	84 402 015	84 400 815/615	84 401 815/615	84 402 815/615
20 A	84 400 020	84 400 056	84 400 156	84 400 256	84 401 020	84 401 058	84 402 020	84 400 820/620	84 401 820/620	84 402 820/620
25 A	84 400 025			84 400 225	84 401 025	84 401 059	84 402 025	84 400 825/625	84 401 825/625	84 402 825/625
30 A	84 400 060			84 400 230			84 402 030		84 401 830/630	84 402 830/630

Ratings 0.5; 0.75; 1.5 Amp are available.

Mounting hardware											
Threaded barrel	M12-0.75										
	M12-100										
	7/16	●	●	●	●				●		
Terminal Screw	8-32 UNC	●	●	●	●	●	●		●	●	
	M4							●			●
Terminal		Offset	Offset	Offset	Offset	Aligned	Aligned	Offset	Offset	Aligned	Offset
Button											
Green color									●	●	●
Black color		●	●	●	●	●	●	●			
Long neck option				●							
Conformity standard											
EN 2495						U		M			
EN 2995										004	
EN 3773							004				
AS33201 - MS3320		●	QPL	QPL	QPL						
VG 95345 TEIL 6								●			●
Mass / MTBF / Vibration / Technical file											
Weight without mounting hardware		< 18	< 18	< 20	< 18	< 18			< 20		
Weight with mounting hardware		< 21	< 20	< 22	< 20	< 20			< 22		
MTBF FH (Typical)		> 7,2 M	> 7,2 M	> 7,2 M	> 7,2 M	> 7,2 M			> 3,6 M		
MIL vibration condition Sinus/Random		A & C	C & E	A & C	G & H	A & C			A & C		
Technical File			SP4374	SP9940	SP9930						

GENERAL CHARACTERISTICS

Electrical			
	28VDC	115VAC (400Hz)	115VAC 60 Hz-230VAC 50Hz
Breaking current 1co + 2OCO	6000 Amp	2500 Amp	CONTACT CROUZET
Dielectric	1500 V	1500 V	
Endurance cycles	5000 (with L/R: 5ms)	5000 (with cos fi: 0,7)	
Insulation resistance	above 100 MΩ	above 100 MΩ	
Working life (endurance) at 5x RC	50 cycles	50 cycles	
Auxiliary contact current	0,1..0,2 Amp	0,1..0,2 Amp	
Voltage drop compliance	EN2495/2995/MS3320/AS33201	EN2495/2995/MS3320/AS33201	

Mechanical		
Operating force	3,5N< push<45N / 5N<pull<30N	
Endurance	without load: 5000 cycles	resistive load: 2500 cycles
Tightening torque (barrel nut)	barrel nut: recommended: 4 ± 0.25 N.m maximum : 5.0 N.m	terminal screw: recommended: 1.6 ± 0.1 N.m maximum : 2.0 N.m

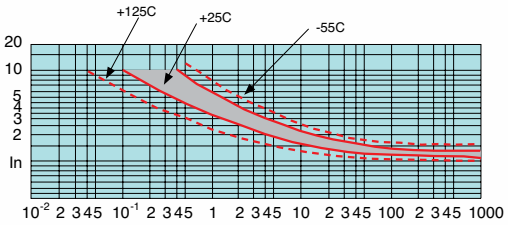
Environmental			
Salt spray	48h 5% NaCl		
Humidity: Test b	RTCA DO160 10 cycles		
Operating temperature	-60°C +125°C for all ratings except 30 Amp: - 60°C + 90°C		
Acceleration (centrifugal)	up to 40g		
Vibrations	EN	QPL (MS AS33201)	High Vibration (HV)
Sinusoidal (MIL STD 202 method 204 D)	10 g-PK: condition A	15 g-PK: condition C	30 g-PK: condition G
Random (MIL STD 202 method 214 A)	9,26 Grms: condition C under 71°C and RC	16,91 Grms: condition E under 71°C and RC	29,28 Grms: condition H under 71°C and RC
Shock	50 g 3 halfsine 11 msec	75 g 3 halfsine 6 msec	above 75 g 3 halfsine 6 msec

www.crouzet.com

Small Model Circuit Breaker Single Pole

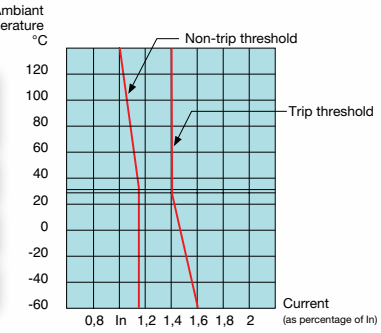
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



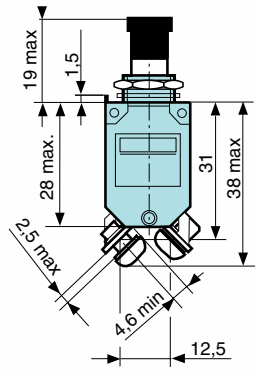
Maximum and minimum limit of ultimate trip

Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	2s -> 15s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

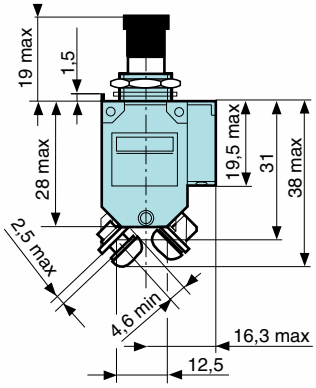


DIMENSIONS

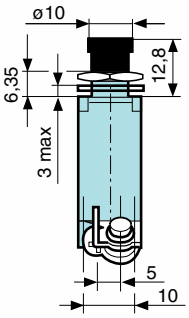
84 400 0
84 402 0

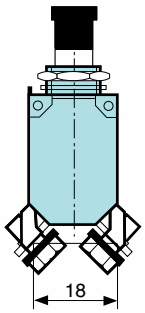


84 400 6-8
84 402 6-8

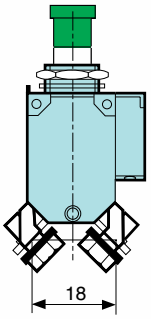


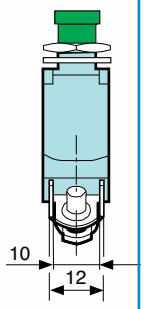
84 401 0

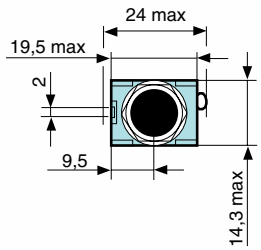


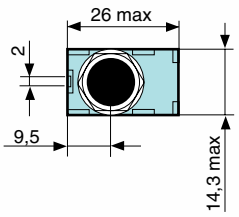


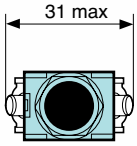
84 401 6-8

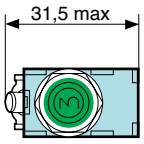




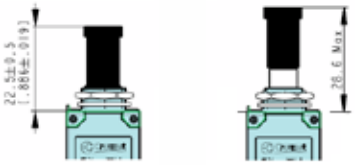








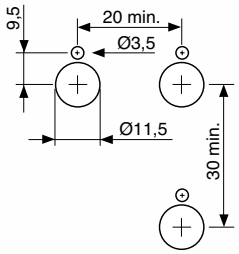
Versions 84 400 1xx



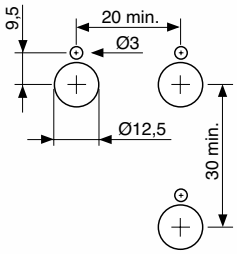
PANEL CUTOUT RECOMMENDATION

■ Thickness: 1.6 mm → 3 mm

Versions 84 400 0



Versions 84 402 0



Versions 84 401 0 - 6 - 8

Small Model Circuit Breaker Three Poles

REFERENCES

Rating	No auxiliary contact					Non polarised auxiliary contact		Polarised auxiliary contact	
1 A	84 411 001	84 412 001	84 413 001	84 410 001	84 414 001	84 411 801	84 412 801	84 411 601	84 413 601
2 A	84 411 002	84 412 002	84 413 002	84 410 002	84 414 002	84 411 802	84 412 802	84 411 602	84 413 602
2.5 A	84 411 012	84 412 012	84 413 012	84 410 012	84 414 012	84 411 812	84 412 812	84 411 612	84 413 612
3 A	84 411 003	84 412 003	84 413 003	84 410 003	84 414 003		84 412 803	84 411 603	84 413 603
4 A		84 412 004					84 412 804		
5 A	84 411 005	84 412 005	84 413 005	84 410 005	84 414 005	84 411 805	84 412 805	84 411 605	84 413 605
7.5 A	84 411 007	84 412 007	84 413 007	84 410 007	84 414 007	84 411 807	84 412 807	84 411 607	84 413 607
10 A	84 411 010	84 412 010	84 413 010	84 410 010	84 414 010	84 411 810	84 412 810	84 411 610	84 413 610
15 A	84 411 015	84 412 015	84 413 015	84 410 015	84 414 015	84 411 815	84 412 815	84 411 615	84 413 615
20 A	84 411 020	84 412 020	84 413 020	84 410 020	84 414 020	84 411 820	84 412 820	84 411 620	84 413 620
25 A	84 411 025	84 412 025	84 413 025			84 411 825	84 412 825	84 411 625	84 413 625
Mounting hardware									
Threaded barrel – M12-0.75			●						●
Threaded barrel – M12-100	●	●				●	●	●	
Threaded barrel – 7/16				●	●				
Terminal Screw – 8-32 UNC	●			●	●	●		●	
Terminal Screw – M4		●	●				●		●
Button color									
Green						●		●	●
Black	●	●	●	●	●		●		
Conformity standard									
EN 2592	U	M							
EN 3774	004		003						
EN 2996						004		005	
VG 95345 TEIL 11		●					●		
AS 14154B/MS14154				●	QPL				
Weight (g)									
Without mounting hardware	< 46					< 51		< 51	
With mounting hardware	< 55					< 60		< 60	
MTBF FH (Typical)	> 1,2 M					> 700 000		> 700 000	

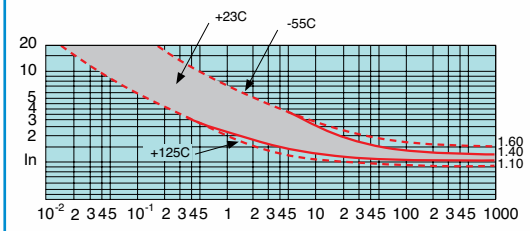
GENERAL CHARACTERISTICS

Electrical		
	115/200 VAC (400 Hz)	115/200 VAC 60 Hz-230/400 VAC 50Hz
Breaking current 1CO + 2OCO	2000 Amp	CONTACT CROUZET
Dielectric	1500 V	
Endurance cycles	5000 (with cos fi: 0,7)	
Insulation resistance	above 100 MΩ	
Working life (endurance) at 5xRC	50 cycles	
Auxiliary contact current	0,1..0,2 Amp	
Voltage drop compliance	MS14154/AS14154A/EN2592/2996/3774	
Mechanical		
Operating force	8N<push<80N	5N<pull<30N
Endurance – no load		5000 cycles
Endurance – on resistive load		5000 cycles
Tightening torque (barrel nut)	recommended: 4 N.m ; Max.: 5 N.m	
Tightening torque (terminal screw)	1,7 N.m +-0,1	
Environmental		
Salt spray	48h	5% NaCl
Humidity: Test b	RTCA DO160	10 cycles
Operating temperature (1 to 15 Amp)	-60°C +125°C	
Operating temperature (20 and 25 Amp)	-60°C.+90°C	
Acceleration (centrifugal)	17g	
Shock	up to 50g (11 ms) -1/2 sine	
Vibration (sinusoidal)		10gn from 10 to 2000Hz
Vibration (random at RC)		up to 9,39grms from 10 to 2000Hz

Small Model Circuit Breaker Three Poles

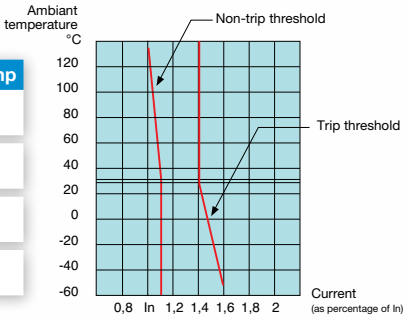
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



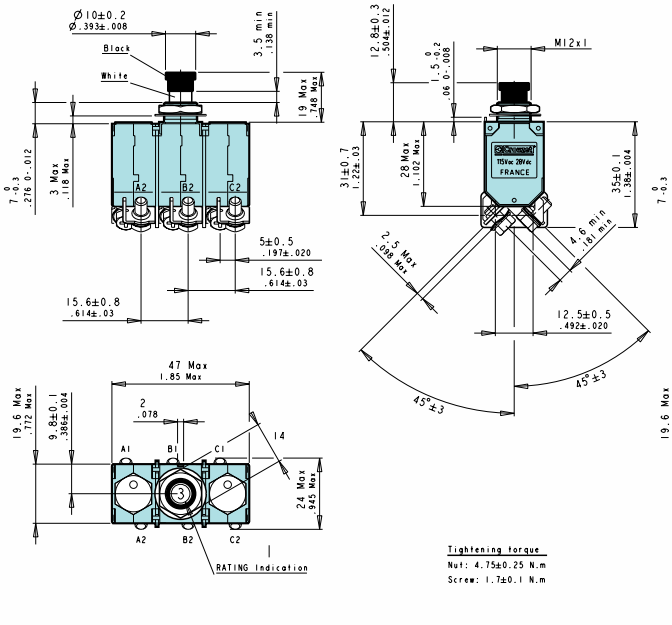
Maximum and minimum limit of ultimate trip

Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	2s -> 15s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

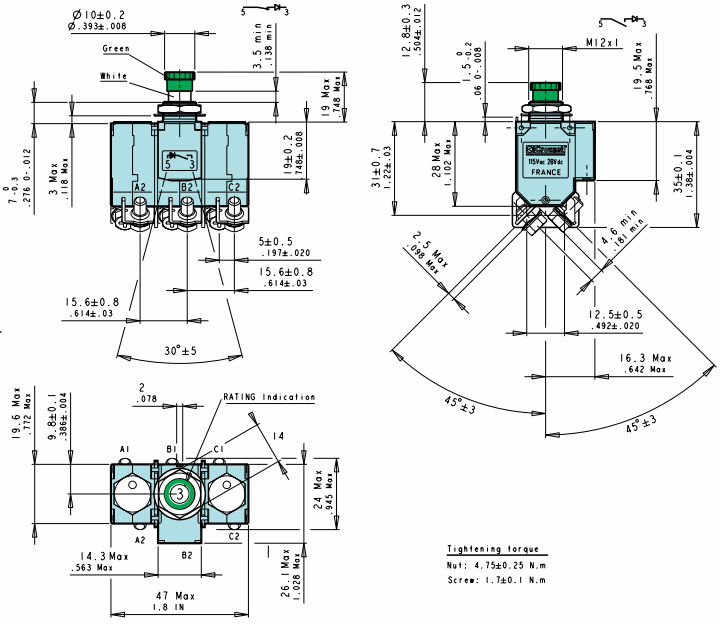


DIMENSIONS

84 411 0 84 412 0
84 413 0 84 414 0



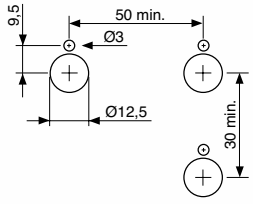
84 411 6 84 411 8
84 412 8 84 413 6



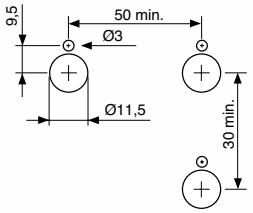
PANEL CUTOUT RECOMMENDATION

■ Thickness: 1.6 mm ➞ 3 mm

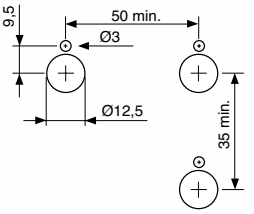
84 411 0 84 412 0
84 413 0



84 414 0



84 411 6 84 411 8
84 412 8 84 413 6



Big Model Circuit Breaker Single Pole

REFERENCES

Rating		No auxiliary contact		Non polarised auxiliary contact	Polarised auxiliary contact		
15 A		84 306 015					
20 A		84 306 020	84 306 016	84 306 320	84 306 620	84 306 616	84 306 655
25 A		84 306 025	84 306 017	84 306 325	84 306 625	84 306 617	84 306 653
30 A		84 306 030					
35 A		84 306 035	84 306 018	84 306 335	84 306 635	84 306 618	84 306 654
50 A		84 306 050	84 306 019	84 306 350	84 306 650	84 306 619	84 306 652
Mounting hardware							
Threaded barrel	M12-0.75	●	●	●	●	●	●
	M12-100						
	7/16						
Terminal Screw	8-32 UNC		●		●	●	●
	M4	●		●			
Button color							
Green				●	●	●	●
Black		●	●				
Conformity standard							
EN 2794		003	004				
EN 3661				004	005	005	006
Weight (g)							
Without mounting hardware		61		66	66		
With mounting hardware		65		70	70		
MTBF FH (Typical)		> 5,4 M		> 2,6 M	> 2,6 M		

GENERAL CHARACTERISTICS

Electrical			
	28VDC	115VAC (400Hz)	115VAC 60 Hz-230VAC 50Hz
Breaking current 1co + 2OCO	4000 Amp	2000 Amp	CONTACT CROUZET
Dielectric	1500 V	1500 V	
Endurance cycles	5000 (with L/R: 5ms)	5000 (with cos fi: 0,7)	
Insulation resistance	above 100 MΩ	above 100 MΩ	
Working life (endurance) at 5xRC	50 cycles	50 cycles	
Voltage drop compliance	EN2794/3661	EN2794/3661	

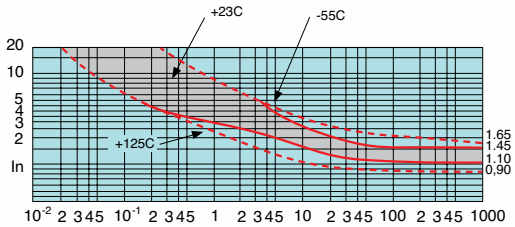
Mechanical		
Operating force	3,5N<push<55N	5N<pull<40N
Endurance	no load	5 000 cycles
	on resistive load	2 500 cycles
Tightening torque (barrel nut)	recommended: 4 N.m ; Max.: 5 N.m	
Tightening torque (terminal screw)	1,7 N.m +-0,1	

Environmental		
Salt spray	48h	5% NaCl
Humidity: Test b	RTCA DO160	10 cycles
Operating temperature	-60°C +125°C	
Acceleration (centrifugal)	up to 17g	
Shock	up to 50g (11 ms) -1/2 sine	
Vibration (sinusoidal)		10gn from 10 to 2000Hz
Vibration (random at RC)		up to 9,39grms from 10 to 2000Hz

Big Model Circuit Breaker Single Pole

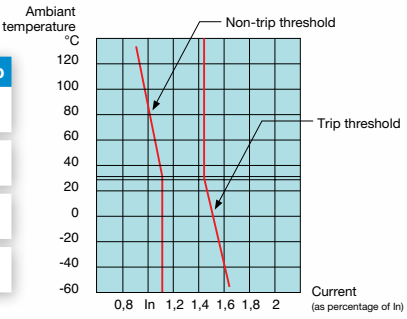
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



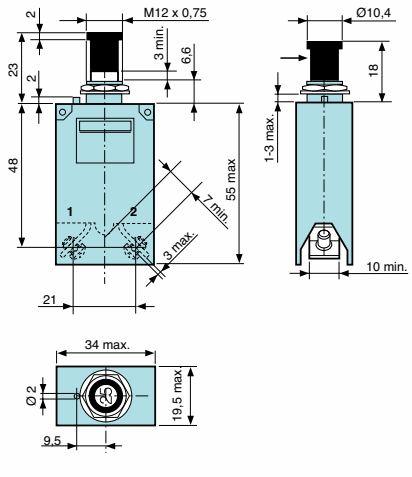
Maximum and minimum limit of ultimate trip

Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	5s -> 25s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

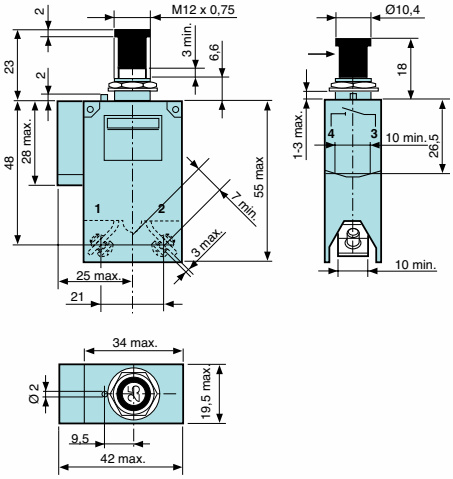


DIMENSIONS

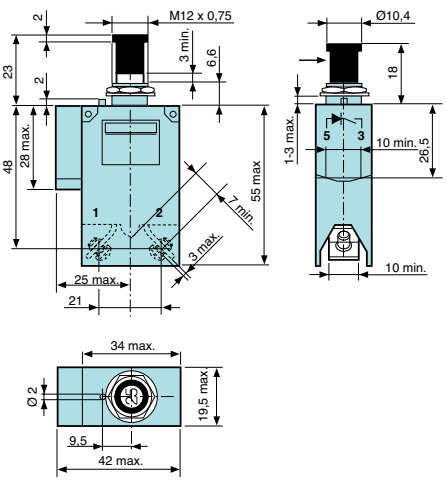
84 306 0



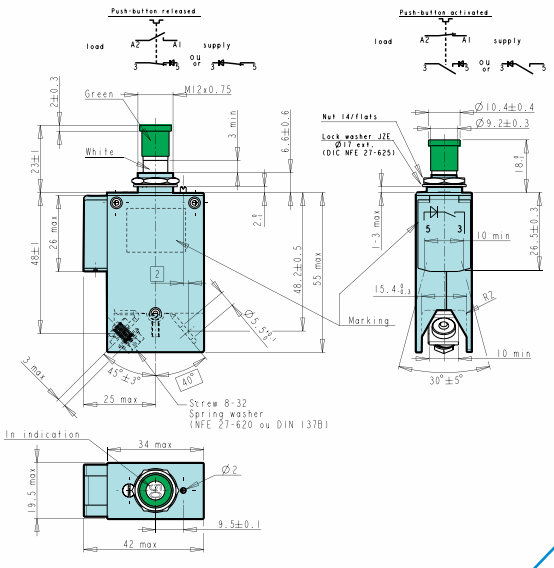
84 306 3



84 306 6



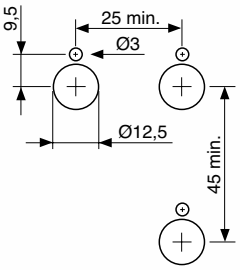
84 306 6 Bus-Bar EN 3661-006



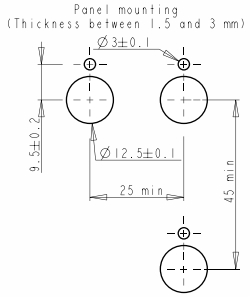
PANEL CUTOUT RECOMMENDATION

■ Thickness 1.6 mm → 3 mm

Versions 84 306 0 - 3 - 6



84 306 6 Bus-Bar EN 3661-006



Big Model Circuit Breaker Three Poles

REFERENCES

Rating	No auxiliary contact			Non polarised auxiliary contact	Polarised auxiliary contact		
15 A	84 313 015			84 313 315			
20 A	84 313 020	84 313 036	84 313 061	84 313 320	84 313 620	84 313 616	84 313 631
25 A	84 313 025	84 313 037	84 313 062	84 313 325	84 313 625	84 313 617	84 313 632
35 A	84 313 035	84 313 038	84 313 063	84 313 335	84 313 635	84 313 618	84 313 633
41 A	84 313 041						
50 A	84 313 050	84 313 058	84 313 066	84 313 350	84 313 650	84 313 619	84 313 634
Mounting hardware							
Threaded barrel – M12-0.75	●	●	●	●	●	●	●
Threaded barrel – M12-100							
Threaded barrel – 7/16							
Terminal Screw – 8-32 UNC		●	●	●		●	●
Terminal Screw – M4	●				●		
Hole ø5.5 for Bus-Bar			●				●
Button color							
Green				●	●	●	●
Black	●	●	●				
Conformity standard							
EN 2665	003	004					
EN 3662				004	005	005	006
Weight (g)							
Without mounting hardware	156			161	161		
With mounting hardware	165			170	170		
MTBF FH (Typical)	> 10 M			> 7 M	> 7 M		

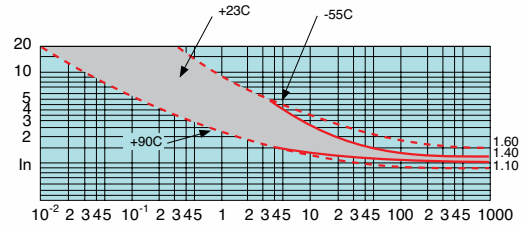
GENERAL CHARACTERISTICS

Electrical		
	115/200 VAC (400 Hz)	115/200 VAC 60 Hz-230/400 VAC 50Hz
Breaking current 1CO + 2OCO	2000 Amp	CONTACT CROUZET
Dielectric	1500 V	
Endurance cycles	5000 (with cos fi: 0,7)	
Insulation resistance	above 100 MΩ	
Working life (endurance) at 5xRC	50 cycles	
Auxiliary contact current	0,1..0,2 Amp	
Voltage drop compliance	EN2665/3662	
Mechanical		
Operating force	20N<push<80N	5N<pull<45N
Endurance – no load	no load	5000 cycles
Endurance – on resistive load	on resistive load	2500 cycles
Tightening torque (barrel nut)	recommended: 4 N.m ; Max.: 5 N.m	
Tightening torque (terminal screw)	1,7 N.m +-0,1	
Environmental		
Salt spray	48h	5% NaCl
Humidity: Test b	RTCA DO160	10 cycles
Operating temperature	-55°C +90°C	
Acceleration	up to 40g	
Shock	up to 50g (11 ms)	
Vibration (sinusoidal)		10gn from 10 to 2000Hz
Vibration (random at RC)		up to 9,39grms from 10 to 2000Hz

Big Model Circuit Breaker Three Poles

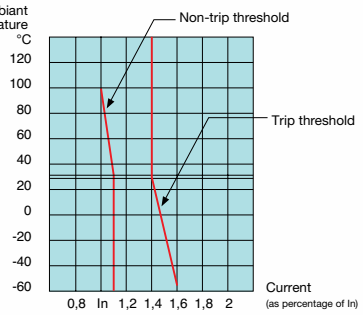
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



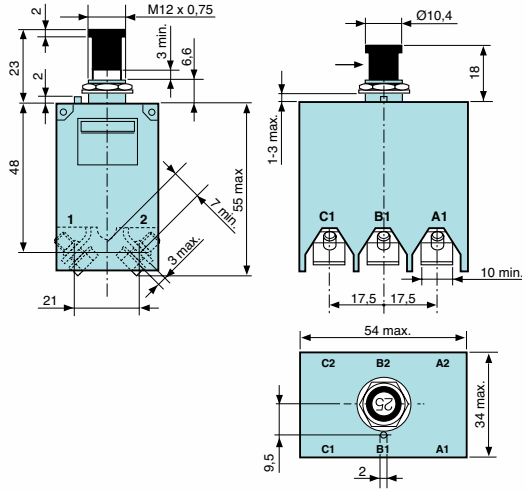
Maximum and minimum limit of ultimate trip

Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	2s -> 15s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

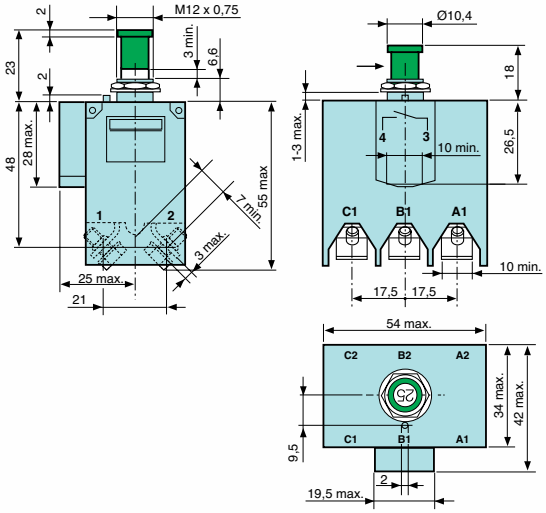


DIMENSIONS

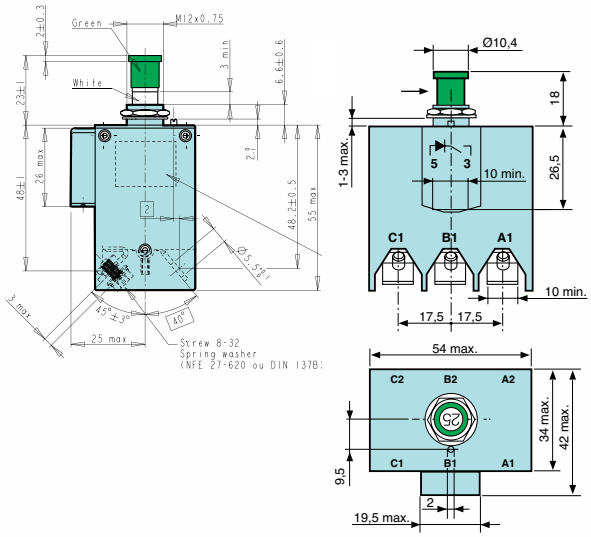
84 313 0



84 313 3 - 84 313 6



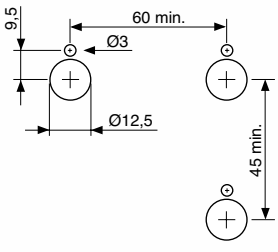
84 313 6 Bus-Bar EN 3662-006



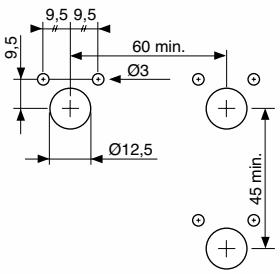
PANEL CUTOUT RECOMMENDATION

■ Thickness 1.6 mm → 3 mm

Versions 84 313 0 - 3 - 6



Versions Bus-Bar EN 3662-006



Frog legs



REFERENCES

Rating	1 pole 45°	1 pole 45°	1 pole 45°	1 pole 60°	3 poles 45°	3 poles 45°	3 poles 60°
0,5 A							
1 A	84 406 001	84 437 001	84 437 101	84 437 201	84 417 001	84 417 101	84 417 201
2 A	84 406 002	84 437 002	84 437 102	84 437 202	84 417 002	84 417 102	84 417 202
2,5 A	84 406 012	84 437 012	84 437 112	84 437 212	84 417 012	84 417 112	84 417 212
3 A	84 406 003	84 437 003	84 437 103	84 437 203	84 417 003	84 417 103	84 417 203
4 A*							
5 A	84 406 005	84 437 005	84 437 105	84 437 205	84 417 005	84 417 105	84 417 205
6 A*							
7,5 A	84 406 007	84 437 007	84 437 107	84 437 207	84 417 007	84 417 107	84 417 207
10 A	84 406 010	84 437 010	84 437 110	84 437 210	84 417 010	84 417 110	84 417 210
15 A	84 406 015	84 437 015	84 437 115	84 437 215	84 417 015	84 417 115	84 417 215
20 A	84 406 020	84 437 020	84 437 120	84 437 220	84 417 020	84 417 120	84 417 220
25 A	84 406 025	84 437 025	84 437 125	84 437 225	84 417 025	84 417 125	84 417 225
30 A		84 437 030	84 437 130	84 437 230	84 417 030	84 417 130	84 417 230

* contact Crouzet for this rating

Mounting hardware								
Threaded barrel	M12-0.75							
	M12-100		●	●	●	●	●	●
	7/16	●						
Terminal Screw	6-32 UNC	●						
	M4		●	●	●	●	●	●

Button color							
Green							
Black	●	●	●	●	●	●	●

Conformity standard							
EN 2495*	●	●	●	●			
EN 2995*	●	●	●	●			
EN 2592*					●	●	●
EN 2996*					●	●	●
EN 3774*					●	●	●
MS26574 **	●						

* for performance ** for terminal configuration

Mass/MTBF/technical file							
Weight without mounting hardware (g)	< 18	< 18	< 18	< 19	< 54	< 54	< 56
Weight with mounting hardware (g)	< 20	< 20	< 20	< 21	< 63	< 63	< 65
MTBF FH (Typical)	> 7,2 M	> 7,2 M	> 7,2 M	> 7,2 M	> 1,7 M	> 1,7 M	> 1,7 M
Technical file	SP 990100	SP 991700	SP 994700	SP 992000	SP 991900	SP 994900	SP 992100

GENERAL CHARACTERISTICS

Electrical			
	28VDC	115VAC (400Hz)	115/200 VAC (400 Hz)
Breaking current 1CO + 2OCO	6000 Amp	2500 Amp	2000 Amp
Dielectric	1500 V	1500 V	1500 V
Endurance cycles	5000 (with L/R: 5ms)	5000 (with cos fi: 0,7)	5000 (with cos fi: 0,7)
Insulation resistance	above 100 MΩ	above 100 MΩ	above 100 MΩ
Working life (endurance) at 5xRC	50 cycles	50 cycles	50 cycles
Auxiliary contact current (if present)	0,1..0,2 Amp	0,1..0,2 Amp	0,1..0,2 Amp
Voltage drop compliance	EN2495/2995/MS3320/AS33201	EN2495/2995/MS3320/AS33201	MS14154/AS14154A/EN2592/2996/3774

Mechanical		
Operating force	3,5N< push<45N / 5N<pull<30N	8N<push<80N / 5N<pull<80N
Endurance	mechanical (no load) 5 000 cycles	mechanical (no load) 5000 cycles
	on resistive load 2 500 cycles	on resistive load 2500 cycles
Tightening torque (barrel nut)	recommended: 4 ± 0.25 N.m maximum : 5.0 N.m	recommended: 4 ± 0.25 N.m maximum : 5.0 N.m
Tightening torque (terminal screw)	recommended: 1,6 ± 0.1 N.m maximum : 2.0 N.m	recommended: 1,6 ± 0.1 N.m maximum : 2.0 N.m

Environmental	
Salt spray	48h 5% NaCl
Humidity: Test b	RTCA DO160 10 cycles
Operating temperature	-60°C +125°C for all ratings except 30 Amp: - 60°C + 90°C
Acceleration (centrifugal)	up to 40g
Shock	50 g 3 halfsine 11 msec
Vibration (sinusoidal) single pole	15 g-PK from 70 to 2000 Hz (MIL STD 202 method 214G condition B with 90% of RC) at 23°C
Vibration (random) single pole	up to 16,91 Grms (MIL STD 202 method 204D condition E with 90% of RC) at 23°C

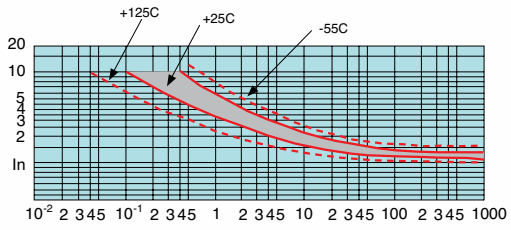
www.crouzet.com

Frog legs

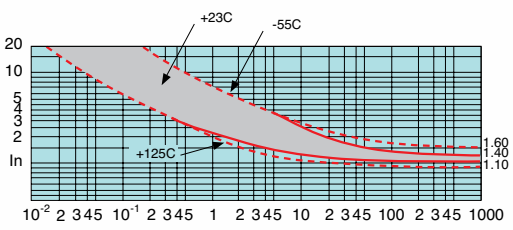
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)

single poles



three poles

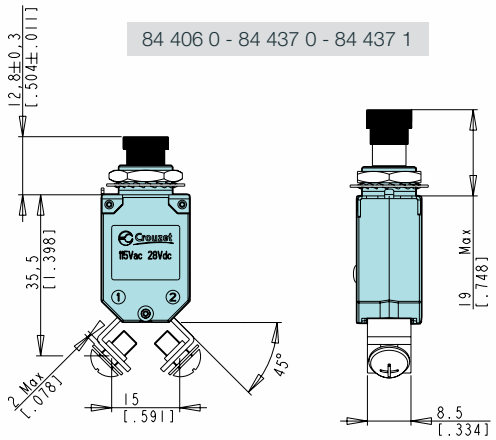


Maximum and minimum limit of ultimate trip

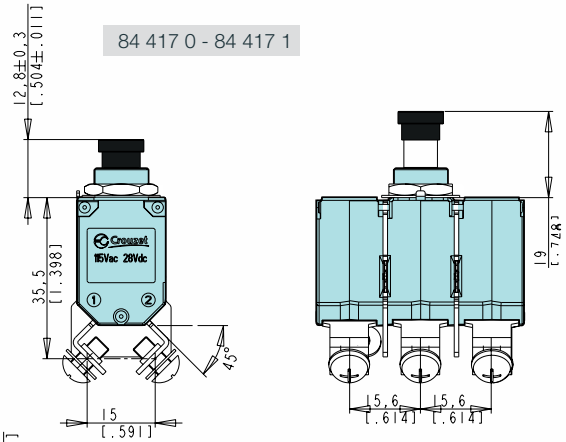
Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	2s -> 15s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

DIMENSIONS

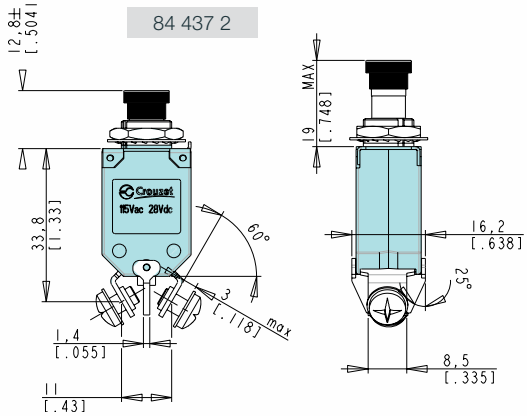
84 406 0 - 84 437 0 - 84 437 1



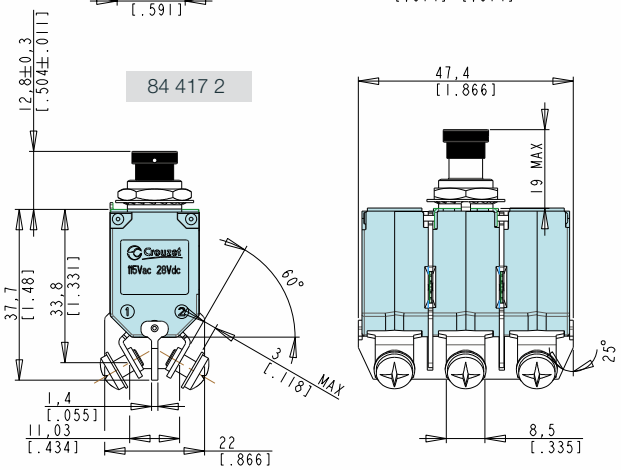
84 417 0 - 84 417 1



84 437 2



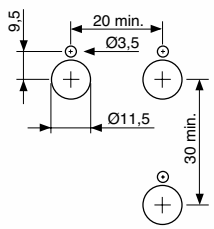
84 417 2



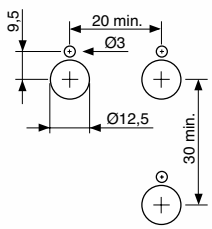
PANEL CUTOUT RECOMMENDATION

■ Thickness 1.6 mm → 3 mm

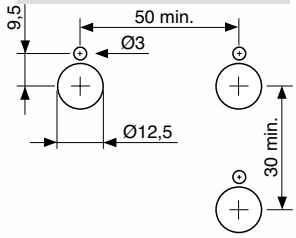
Versions 84 406 0



Versions 84 437 0
84 437 1 - 84 437 2



Versions 84 417 0 - 84 417 1
84 417 20



Small model Circuit Breaker Faston connection

Push-pull push-fit 6.35 mm blade




REFERENCES

Rating	no auxiliary contacts	no auxiliary contacts	non polarised/polarised	no auxiliary contacts
0,5 A		84 408 111		84 418 011
1 A	84 408 001	84 408 101	84 408 601/801	84 418 001
2 A	84 408 002	84 408 102	84 408 602/802	84 418 002
2,5 A	84 408 012	84 408 112	84 408 612/812	84 418 012
3 A	84 408 003	84 408 103	84 408 603/803	84 418 003
4 A	84 408 004	84 408 104	84 408 604/804	84 418 004
5 A	84 408 005	84 408 105	84 408 605/805	84 418 005
6 A	84 408 006	84 408 106	84 408 606/806	84 418 006
7,5 A	84 408 007	84 408 107	84 408 607/807	84 418 007
10 A	84 408 010	84 408 110	84 408 610/810	84 418 010
15 A	84 408 015	84 408 115	84 408 615/815	84 418 015
20 A	84 408 020	84 408 120	84 408 620/820	84 418 020
25 A	84 408 025	84 408 125	84 408 625/825 available in 2016	84 418 025
Mounting hardware				
Straight terminals without screws	●	●	●	●
Barrel threadings				
Conical barrel	●	●	●	●
Button				
Green color			●	
Black color	●	●		●
Long neck (long button)		●	●	
Conformity standard				
EN 2495*	●			●
EN 2995*		004	005	
EN3773-006	●	●		
EN3774-006				●
AS 33201	●	●	●	
Mass/MTBF / Technical file				
No mounting hardware	< 14,5	< 15,5	< 16,5	< 51
MTBF FH (Typical)	> 7,2 M	> 7,2 M	> 3,6 M	> 1,7 M
Technical file	SP 991600	SP 991800	SP 991800	SP 991500

* for thermal performance and auxiliary contact performance

GENERAL CHARACTERISTICS

Electrical	Single pole		Three poles
	28VDC	115VAC (400Hz)	115/200 VAC (400 Hz)
Breaking current 1CO + 2OCO	6000 Amp	2500 Amp	2000 Amp
Dielectric	1500 V	1500 V	1500 V
Endurance cycles	5000 (with L/R: 5ms)	5000 (with cos fi: 0,7)	5000 (with cos fi: 0,7)
Insulation resistance	above 100 MΩ	above 100 MΩ	above 100 MΩ
Working life (endurance) at 5xRC	50 cycles	50 cycles	50 cycles
Auxiliary contact current (if present)	0,1..0,2 Amp	0,1..0,2 Amp	0,1..0,2 Amp
Voltage drop compliance	EN2495/2995/MS3320/AS33201	EN2495/2995/MS3320/AS33201	MS14154/AS14154A/EN2592/2996/3774
Mechanical			
Operating force	3,5N< push<45N / 5N<pull<30N		8N<push<80N / 5N<pull<80N
Endurance	mechanical (no load) 5 000 cycles		mechanical (no load) 5000 cycles
	on resistive load 2 500 cycles		on resistive load 2500 cycles
Tightening torque (barrel nut)	recommended: 4 ± 0.25 N.m maximum : 5.0 N.m		recommended: 4 ± 0.25 N.m maximum : 5.0 N.m
Tightening torque (terminal screw)	recommended: 1,6 ± 0.1 N.m maximum : 2.0 N.m		recommended: 1,6 ± 0.1 N.m maximum : 2.0 N.m

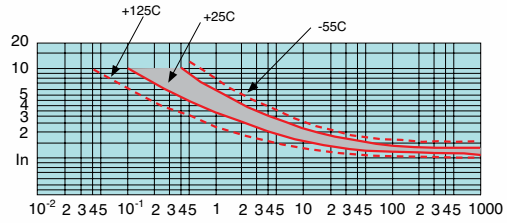
Environmental	
Salt spray	48h 5% NaCl
Humidity: Test b	RTCA DO160 10 cycles
Operating temperature	-60°C +125°C for all ratings except 30 Amp: - 60°C + 90°C
Acceleration (centrifugal)	up to 40g
Shock	50 g 3 halfsine 11 msec
Vibration (sinusoidal) single pole	15 g-PK from 70 to 2000 Hz (MIL STD 202 method 204 D condition B with 90% of RC) at 23°C
Vibration (random) single pole	16,91 Grms (MIL STD 202 method 214 A condition E with 90% of RC) at 23°C

www.crouzet.com

Push-pull push-fit 0.25 inch tab

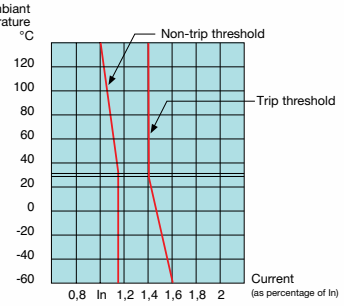
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



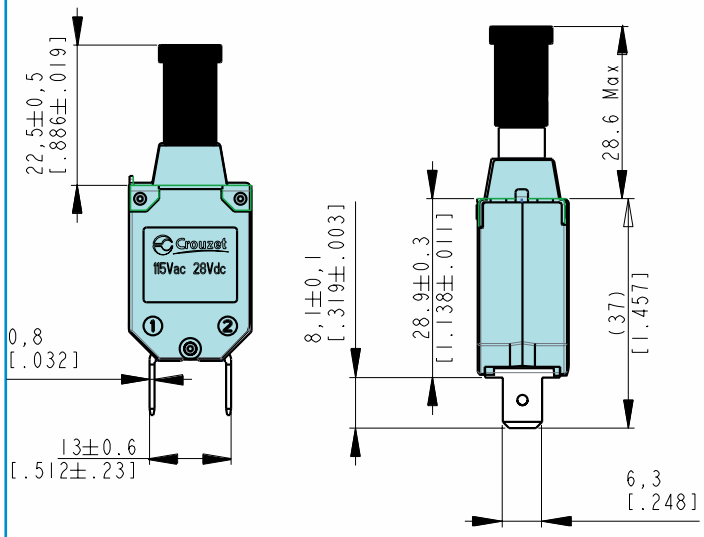
Maximum and minimum limit of ultimate trip

Rating	1,5 -> 5 Amp	7,5 -> 25 Amp
Non tripping point at 25°C	1,15 * RC	1,15 * RC
Tripping point at 25°C	1,4 * RC	1,4 * RC
Tripping time at 2 * RC	2s -> 15s	4s -> 20s
Non tripping point at 125°C	1 * RC	1 * RC

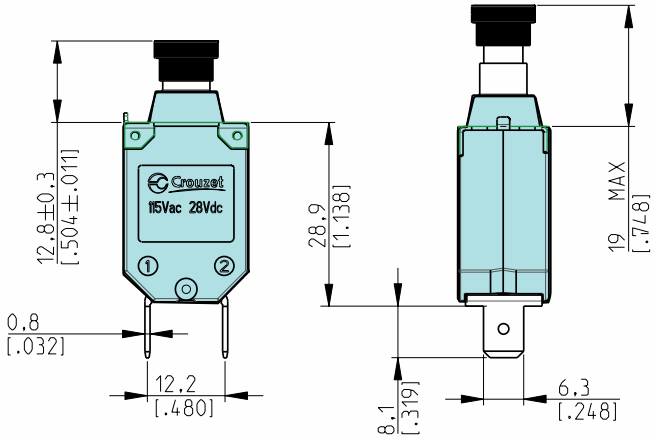


DIMENSIONS

84 408 1

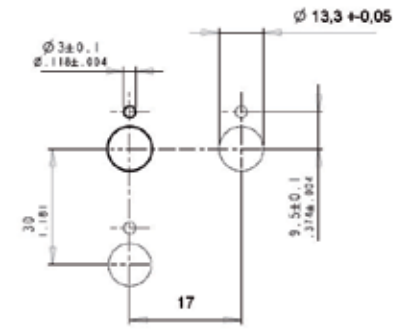


84 408 0

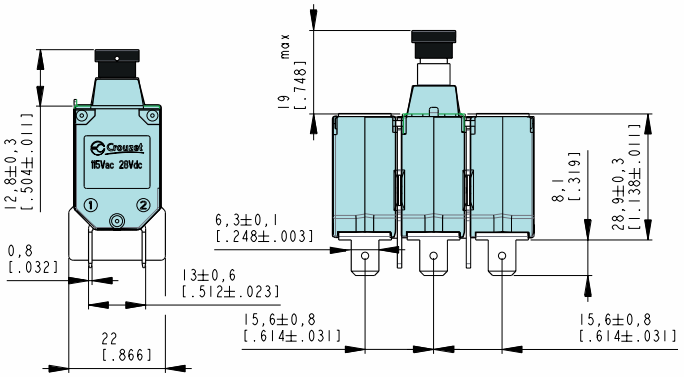


PANEL CUTOUT RECOMMENDATION

- Thickness: 1.6 mm for ring gasket



84 418 0



Push-push

Read also page 46

REFERENCES

Rating	Faston	Flying leads
1 A	84 405 001	
1,5 A		84 405 040
2 A	84 405 002	
2,5 A	84 405 012	
3 A	84 405 003	
5 A	84 405 005	
7,5 A	84 405 007	
10 A	84 405 010	
15 A	84 405 015	
20 A	84 405 020	
25 A	84 405 025	
Mounting hardware		
	Faston terminal	Barrel nut M12-100 + 500mm flying leads
Button color		
White	●	●
Conformity standard		
Air 6 625-403	●	●
GAM TI-II-40	●	●
EN 3773-3774*	●	●

* our equipment complies with EN standards

Weight (g)		
Weight	< 15	< 25
MTBF FH (Typical)	> 3,6 M	> 3,6 M

GENERAL CHARACTERISTICS

Electrical			
	28VDC	115VAC (400Hz)	115VAC 60Hz-230VAC 50Hz
Breaking current 1CO + 2OCO	3000 Amp	1500 Amp	CONTACT CROUZET
Dielectric	1500 V	1500 V	
Endurance cycles	5000	5000	
Insulation resistance	above 100 MΩ	above 100 MΩ	
Working life (endurance) at 5° RC	1000 cycles	1000 cycles	
Auxiliary contact current	0,1..0,2 Amp	0,1..0,2 Amp	
Voltage drop compliance	EN2495/2995/MS3320/AS33201	EN2495/2995/MS3320/AS33201	

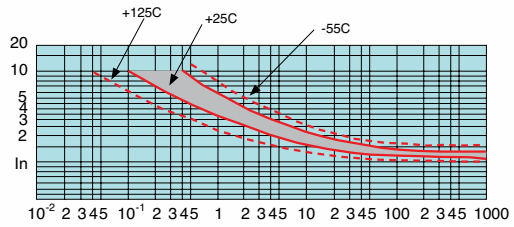
Mechanical		
Operating force		
Endurance	no load	40 000 cycles
	on resistive load	40 000 cycles
Tightening torque (barrel nut)	recommended: 4 N.m ; Max.: 5 N.m	
Tightening torque (terminal screw)	1,7 N.m +-0,1	

Environmental		
Salt spray	48h	5% NaCl
Humidity: Test b	RTCA DO160	10 cycles
Operating temperature	-60°C +125°C	
Acceleration	up to 20g	
Shock	up to 50g (11 ms)	
Vibration (sinusoidal)		10gn from 10 to 2000Hz
Vibration (random at RC)		up to 9,39grms from 10 to 2000Hz

Push-push

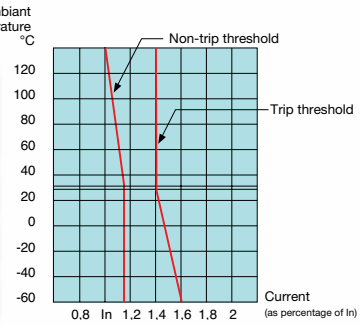
CURVES

Trip times envelope for temperature from -55°C to 125°C (direct overload)



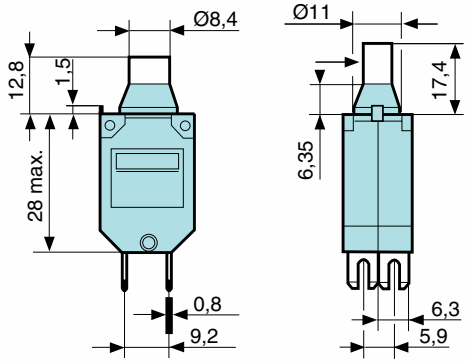
Maximum and minimum limit of ultimate trip

Rating	1 -> 3 Amp	5 -> 25 Amp	5 -> 25 Amp
Non tripping point at 25°C	1,15 In	1,15 In	1,15 In
Tripping point at 25°C	1,4 In	1,4 In	1,4 In
Tripping time at 2 * RC	2s -> 15s	4s -> 16s	6s -> 20s
Non tripping point at 125°C	In	In	In

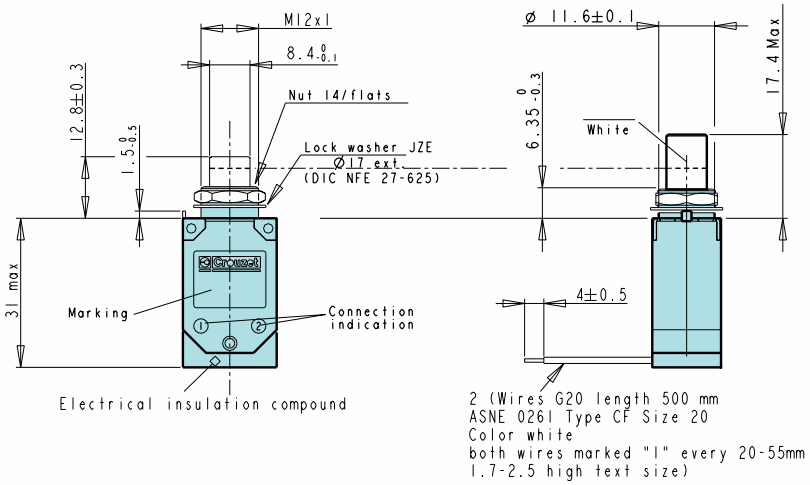


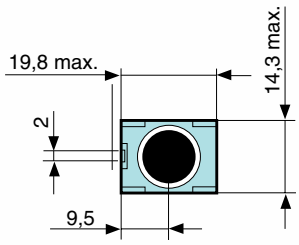
DIMENSIONS

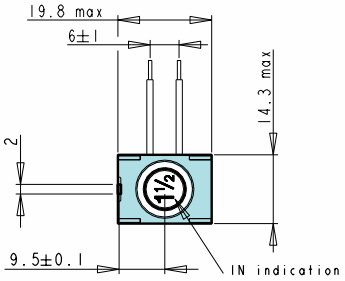
84 405 0



84 405 04X



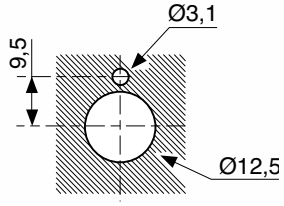




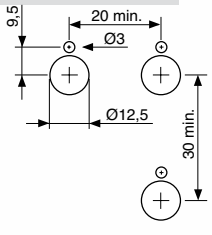
PANEL CUTOUT RECOMMENDATION

■ Thickness 1.6 mm → 3 mm

Version 84 405 0



Version 84 405 04X



GFCB and AFCB

Read also pages 8-11

REFERENCES

Rating	GFCB (star)**	Three pole AFCB	Single pole AFCB
1 A			
3 A	84 411 136	84 411 103	84 401 503
5 A	84 411 137	84 411 105	84 401 505
7,5 A	84 411 138	84 411 107	84 401 507
10 A	84 411 139	84 411 110	84 401 510
15 A	84 411 140	84 411 115	84 401 515
20 A	84 411 141	84 411 120	84 401 520
25 A	84 411 142	84 411 125	84 401 525

** on request the GFCB is available in star or triangle configuration with different thresholds

Mounting hardware				
Threaded barrel	M12-0.75			
	M12-100	●	●	●
	7/16			
Terminal Screw	8-32 UNC	●	●	●
	M4			

Button color			
Green			●
Black	●	●	

Conformity standard			
EN 2592 - EN 2996*	●	●	
EN 2495*			●
AS 5692	●	●	●

* for thermal part

Weight (g)			
Without mounting hardware	< 141	< 141	< 31
With mounting hardware	< 150	< 150	< 33
MTBF FH (Typical)	> 150 000	> 150 000	> 450 000

GENERAL CHARACTERISTICS

Electrical		
	115/200 VAC (400 Hz)	
Breaking current 1CO + 2OCO	2000 Amp	
Dielectric	1500 V	
Endurance cycles	5000 (with cos fi: 0,7)	
Insulation resistance	above 100 MΩ	
Working life (endurance) at 5° RC	50 cycles	
Auxiliary contact current	0,1..0,2 Amp	
Voltage drop compliance	MS14154/AS14154A/EN2592/2996/3774	

Mechanical		
Operating force	8N<push<80N	5N<pull<30N
Endurance	no load	5 000 cycles
	on resistive load	5 000 cycles
Tightening torque (barrel nut)	recommended: 4 N.m ; Max.: 5 N.m	
Tightening torque (terminal screw)	1,7 N.m +-0,1	

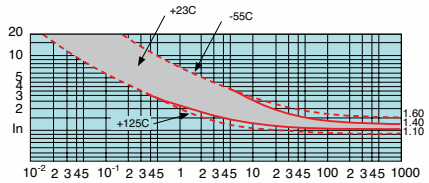
Environmental	
Salt spray	According DO160 section 14 category B
Humidity	According DO160 section 6 category B
Operating temperature (1 to 15 Amp)	-60°C +125°C
Operating temperature (20 and 25 Amp)	-60°C +90°C
Operating temperature (Arc fault and ground fault detection)	-40°C +71°C
Acceleration (centrifugal)	17g
Shock	up to 50g (11 ms) -1/2 sine
Vibration (sinusoidal)	sinusoidal 10gn from 10 to 2000Hz
Vibration (random at RC)	5,81grms from 10 to 2000Hz

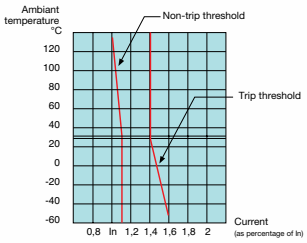
GFCB and AFCB

CURVES

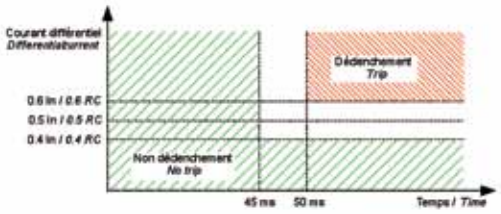
Thermal trip

Trip times envelope for temperature from -60°C to 125°C (direct overload)





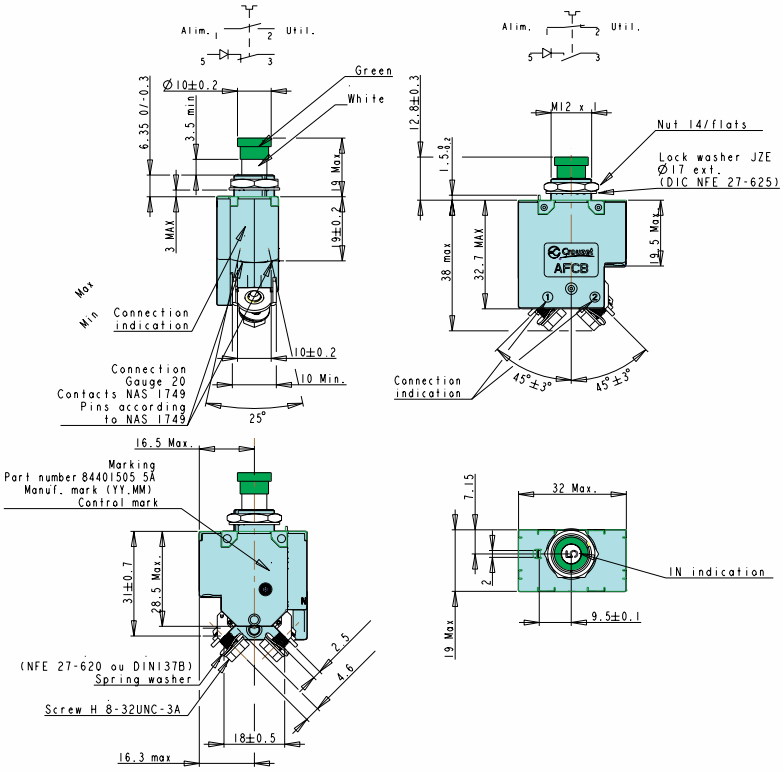
Ground fault trip thresholds



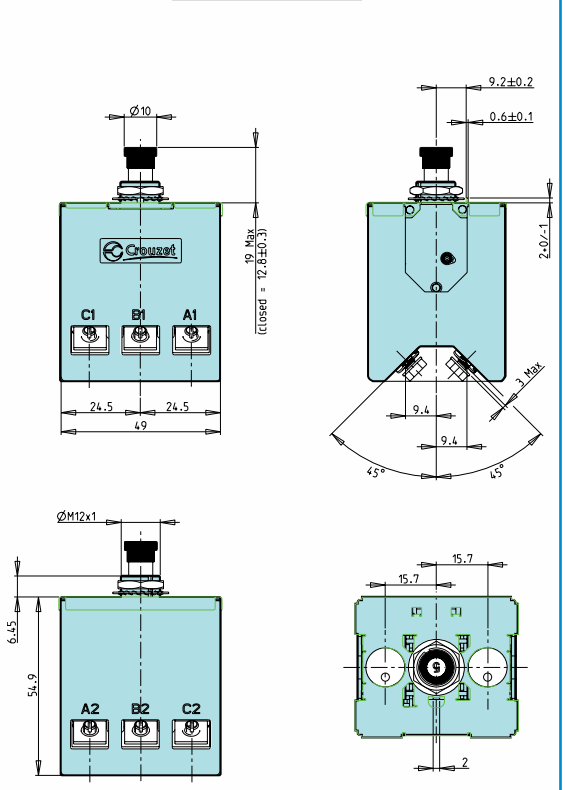
Arc fault trip: Compliant with AS5692

DIMENSIONS

84401 5



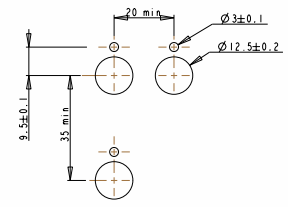
84 411 1



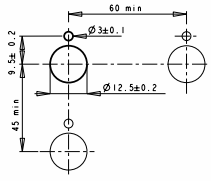
PANEL CUTOUT RECOMMENDATION

Thickness 1.6 mm → 2.4 mm

84401 5



84 411 1



Dummy & Simulator CB

Read also page 46 and page 49

84 404 011

84 404 001

84 404 004

84 411 860

84 313 626

DUMMY CIRCUIT BREAKER

Small Model Single Pole

Description	Aux. contact	Ref.	Conformity	Barrel threadings			Terminal screw		Control button
				M12-0,75	M12-100	7/16	H8-32	CB M4	
Reset button	Yes	84 404 001	ABS006401		●				Popped out
DPMU	Yes	84 404 002	E0486A01		●				Pushed in
Push push faston	No	84 404 003			●				Without
DPMU	No	84 404 004				●	●		Pushed in
DPMU	No	84 404 005			●			●	Popped out
DPMU	Yes	84 404 006	E0486B01		●				Without
Frog legs	No	84 404 009			●		6-32UNC2A		Without
Frog legs	Yes	84 404 010			●		6-32UNC2A		Without
One terminal DPMU	No	84 404 011			●			●	Pushed in
Frog legs	Yes	84 404 013			●			●	Without

Small Model Three Poles

Description	Aux. contact	Ref.	Conformity	Barrel threadings			Terminal screw		Control button
				M12-0,75	M12-100	7/16	H8-32	CB M4	
DPMT	Yes	84 404 007	E0486B03		●				Without
DPMT	Yes	84 411 860	E0486A03		●				Pushed in

Big Model Single Pole

Description	Aux. contact	Ref.	Conformity	Barrel threadings			Terminal screw		Control button
				M12-0,75	M12-100	7/16	H8-32	CB M4	
		84 306 xxx							

Big Model Three Poles

Description	Aux. contact	Ref.	Conformity	Barrel threadings			Terminal screw		Control button
				M12-0,75	M12-100	7/16	Bus-bar	CB M4	
DGMT	Yes	84 313 626	E0486A04	●			●		Pushed in
DGMT	No	84 313 044	E0486A04	●					Without

SELECTION GUIDE FOR SIMULATOR CBs

Derived from "standard" or "catalog CBs" (in the light blue column) **the dark blue column gives the references of the Simulator CBs:**

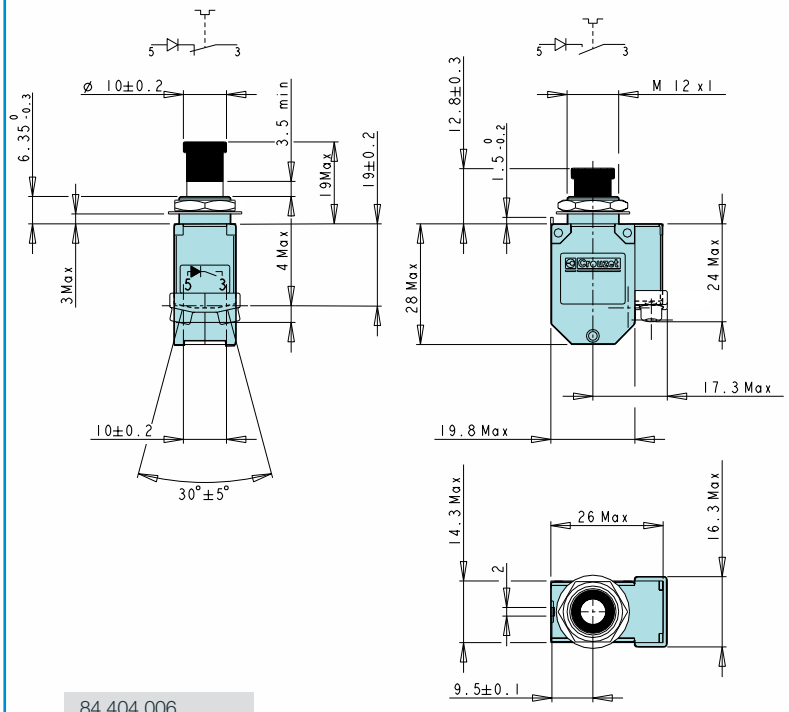
CHOICE BY STANDARD/RATING

	Standard	Simulator	Standard	Simulator	Standard	Simulator	Standard	Simulator	Standard	Simulator
Rate (A)	**EN3661-004 green button**	**same with black button**	**844006 green button**	**same with black button**	**844026 green button**	**same with black button**	**844006 green button**	**same with black button rotated 180°**	**EN2495-M 0,5 amp Rating**	**same with different button value**
	DGMU	**DGMU**	**DPMU**	**DPMU**	**DPMU**	**DPMU**	**DPMU**	**DPMU**	**DPMU**	**DPMU**
0,5			84400611	84400650			84400611	84400636	84402011	
0,75								84400637		
1			84400601	84400651			84400601	84400638		
1,5				84400652				84400639		
2								84400640		
2,5			84400612		84402612	84402712	84400612	84400641		
3			84400603	84400653	84402603	84402703	84400603	84400642		84402036
4			84400604	84400654			84400604	84400643		
5			84400605	84400655	84402605	84402705	84400605	84400644		84402037
7,5			84400607	84400656	84402607	84402707	84400607	84400645		84402038
10			84400610	84400657	84402610	84402710	84400610	84400646		84402039
15			84400615	84400658	84402615	84402715	84400615	84400647		84402040
20			84400620	84400659	84402620	84402720	84400620	84400648		84402041
25	84306325	84306353	84400625	84400661	84402625	84402725	84400625	84400649		84402042
30			84400630	84400662						
35	84306335	84306352								84402043
50	84306350	84306351								
no marking										84402044
mounting hw	**mounting hardware on CB**		**mounting hardware in bag**		**mounting hardware on CB**		**mounting hardware on CB**		**mounting hardware on CB**	

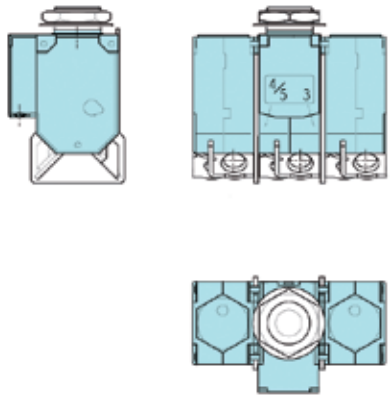
Dummy & Simulator CB

DIMENSIONS

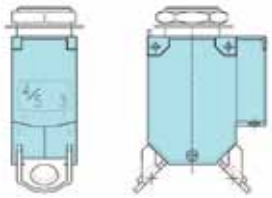
84 404 001



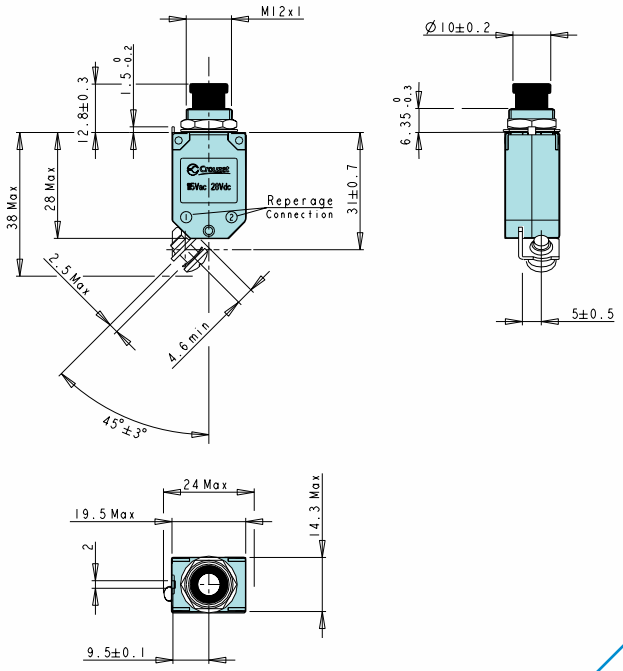
84 404 007



84 404 006



84 404 011

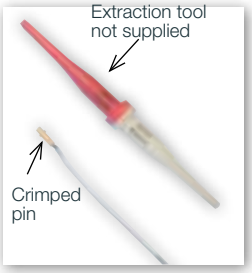


PANEL CUTOUT RECOMMENDATION

■ Thickness 1.6 mm → 3 mm

Please, refer to the according technical file.

Accessories



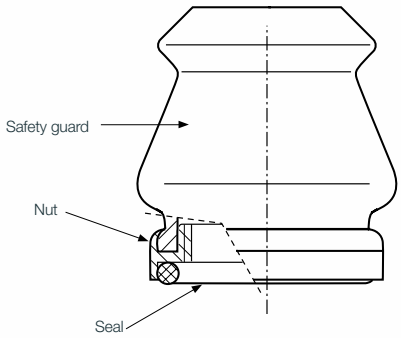
REFERENCES

Rating		Gag	Caps	Covers	Auxiliary contact pin
red gag		23422009			
grey cap	panel hole diam 12,5 mm		24323003		
brown cap	panel hole diam 12,5 mm		24323005		
opaque covers	Barrel M12*1			79254157	
	Barrel M12*0.75			79254154	
	Barrel 15/32			79254155	
	Barrel 7/16			79254156	
clear covers (see through)	Barrel M12*1			79254150	
	Barrel M12*0.75			79254151	
	Barrel 15/32			79254152	
	Barrel 7/16			79254153	
male pin	EN 3155 -016M 2018				25637611

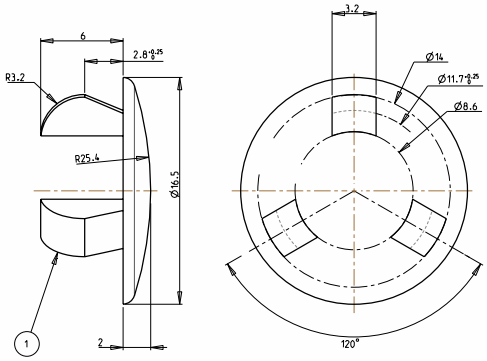
Other information	
crimping tool for pin 25637611:	crimp tool: M22520/1-01 and crimp locator: M22520/1-02
insertion extraction tool:	Ref. Deutsch: 020-0008-20
male pin	Ref. Deutsch: 006-0912-20

DIMENSIONS

79 254 150-153-156-157

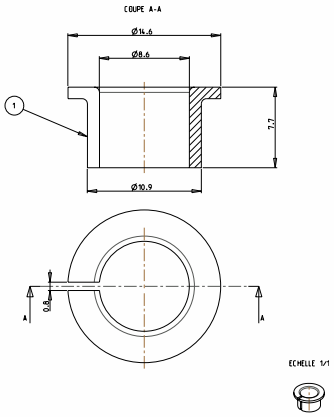


24 323 003 24 323 005

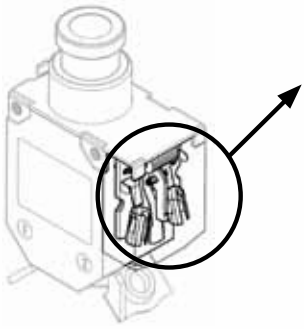


23 422 009

EC 79 25 40 85



25 637 611



Connector pins for auxiliary contacts:
EN 3155 - 016 M2018
Wire gage: 18 to 24 (0.21 to 0.93mm²)