



Enclosed switches

Load break switches

20 to 1600 A

Integrated products & solutions



como-enc_030-front.eps

COMO enclosure 20 to 125 A
Polycarbonate - IP65



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SIRCO enclosure 160 to 630 A
Polyester - IP65



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SIRCO M enclosure 32 to 100 A
Stainless steel - IP65



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SIRCO M enclosure 20 to 100 A
Painted steel - IP65



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SIRCO enclosure 160 to 1600 A
Painted steel - IP65

The solution for

- > OEM
- > Industries
- > Commercial buildings
- > Electrical distribution



Strong points

- > Safe operation
- > Suitable for all kinds of environment
- > Easy setup
- > Extensive range

Compliance with standards

- > IEC 60947-3
- > IEC 60364
- > EN 60947-3
- > EN 61439
- > EN 60204-1



Other products

- > Customised solutions available on request.

Function

Enclosed load break switches ensure the on-load breaking and making of circuits and safely isolate all low-voltage electrical circuits by providing protection against contact with live parts and environmental elements, such as dust, water and other hazards.

They enable the shutdown and isolation of the power supply as close to the equipment as possible.

Advantages

Safe operation

- Secures transfer for mechanical or electrical work.
- On-load breaking.
- Ergonomic control lever, available in red/yellow or black.
- Triple lock in OFF position.

Suitable for all kinds of environment

- Insulating enclosure for chemical and food processing applications, indoor or outdoor installation.
- Painted steel enclosure for areas at risk of mechanical impact.
- Stainless enclosure for food processing and pharmaceutical applications.

Easy setup

- Cable access top and/or bottom.
- Pre-drilled cable glands (up to 125 A).
- Removable steel cable glands, top and bottom (> 125 A), aluminium coated (> 630 A).
- Plenty of room for cabling.

Extensive range

- Standard range
- Customised on request.



coff_605.eps

Load break switch in isolating enclosure

■ **COMO** in polycarbonate enclosure



General characteristics

- From 20 to 125 A.
- 3, 4, 6, 8 poles.
- Yellow/red or grey/blue version.
- Triple lock in OFF position.
- Polycarbonate enclosure.
- Screw-on front.
- Degree of protection: IP65.
- Pre-drilled cable-in holes at top bottom and sides.
- Switch centring system for easy closing.
- Door interlocking when switch is ON.

Accessories

- Unswitched neutral pole optional extra (max. 1).
- NO+NC or 2 NO auxiliary contact for pre-break and signalling of positions 0 and I. Up to 2 auxiliary contacts on each product, on the left or right side of the device.

References

| Rating (A) | N° of poles | Grey/blue lever Reference | Red/yellow lever Reference | Extra pole ⁽¹⁾ (connected) | Auxiliary contacts ⁽¹⁾ | Enclosure | | |
|------------|-------------|---------------------------|----------------------------|---------------------------------------|-----------------------------------|-----------|-----------------|------------------------------|
| | | | | | | Size | H x W x D (mm) | Cable-in top and bottom (mm) |
| 20 | 3 P | 2115 3301 | 2115 3401 | - | - | CPC 0 | 92 x 64 x 83 | 2 x Ø 25 |
| | 4 P | 2115 4301 | 2115 4401 | | | | | |
| 25 | 3 P | 2115 3302 | 2115 3402 | 2115 5005 | | CPC 1 | 163 x 100 x 115 | 2 x Ø 25 |
| | 4 P | 2115 4302 | 2115 4402 | | | | | |
| 32 | 3 P | 2115 3303 | 2115 3403 | 2115 5005 | | CPC 2 | 200 x 146 x 150 | 2 x Ø 32 + 2 x Ø 40 |
| | 4 P | 2115 4303 | 2115 4403 | | | | | |
| | 6 P | 2115 6303 | 2115 6403 | | | | | |
| 40 | 3 P | 2115 3304 | 2115 3404 | 2115 5007 | 1 AC NO+NC 2113 4001 | CPC 1 | 163 x 100 x 115 | 2 x Ø 25 |
| | 4 P | 2115 4304 | 2115 4404 | | | | | |
| 63 | 3 P | 2115 3306 | 2115 3406 | 2115 5007 | 1 AC 2 NO 2113 4002 | CPC 2 | 200 x 146 x 150 | 2 x Ø 32 + 2 x Ø 40 |
| | 4 P | 2115 4306 | 2115 4406 | | | | | |
| | 8 P | 2115 8306 | 2115 8406 | | | | | |
| 80 | 3 P | 2115 3308 | 2115 3408 | 2115 5009 | | CPC 3 | 304 x 214 x 182 | 2 x Ø 50 + 2 x Ø 63 |
| | 4 P | 2115 4308 | 2115 4408 | | | | | |
| 100 | 3 P | 2115 3309 | 2115 3409 | 2115 5011 | | CPC 2 | 200 x 146 x 150 | 2 x Ø 32 + 2 x Ø 40 |
| | 4 P | 2115 4309 | 2115 4409 | | | | | |
| 125 | 3 P | 2115 3312 | 2115 3412 | 2115 5011 | | CPC 3 | 304 x 214 x 182 | 2 x Ø 50 + 2 x Ø 63 |
| | 4 P | 2115 4312 | 2115 4412 | | | | | |

(1) Max. setup: 1 extra pole + 1 aux contact, or 2 aux contacts

Possible configurations

| Additional contact | Product | Additional contact |
|--------------------|----------|--------------------|
| Aux. contact | 3/4/6/8P | Aux. contact |
| Solid neutral | 3/4/6/8P | Aux. contact |
| Aux. contact | 3/4/6/8P | Solid neutral |

Enclosed switches

Load break switches

20 to 1600 A

Load break switch in isolating enclosure

■ **SIRCO** in polyester enclosure



General characteristics

- From 160 to 630 A.
- 3 poles + unswitched neutral, 4 poles.
- Black lever (yellow/red on request).
- Triple lock in OFF position.
- Polyester enclosure.
- Screw-on front.
- Colour: RAL 7035.
- Degree of protection: IP65.
- Wall-mounted, 4 brackets included.

Accessories

- NO/NC auxiliary contact.
- Terminal screen.

References

| Rating (A) | N° of poles | Handle Black Reference | Auxiliary contacts | Protective screen | Enclosure | | | | |
|------------|-------------|------------------------|--|--|-----------|-----------------|-----------------|--|--|
| | | | | | Size | H x W x D (mm) | | | |
| 160 | 3 P + N | 3116 5016 | 1 st AC NO/NC 2699 0031 | 2698 3012 | CP 32 | 360 x 270 x 171 | | | |
| | 4 P | 3116 4016 | | 2698 4012 | | | | | |
| 250 | 3 P + N | 3116 5025 | | 2 nd AC 2 NO/NC 2699 0032 | 2698 3020 | CP 53 | 540 x 360 x 171 | | |
| | 4 P | 3116 4025 | | | 2698 4020 | | | | |
| 400 | 3 P + N | 3116 5040 | 2698 3050 | | 2698 3050 | CP 75 | 720 x 540 x 201 | | |
| | 4 P | 3116 4040 | | | 2698 4050 | | | | |
| 630 | 3 P + N | 3116 5063 | | 2698 3050 | 2698 4050 | | | | |
| | 4 P | 3116 4063 | | | | | | | |

Load break switch in metallic enclosure

■ **SIRCO M** in painted steel enclosure



General characteristics

- From 20 to 100 A.
- 3 poles + solid neutral, unswitched 4th pole optional extra (max. 1).
- Yellow/red or black lever.
- Triple lock in OFF position.
- Painted steel enclosure.
- Door latch system or screw-on.
- Colour: RAL 7035.

- Pre-drilled cable-in holes at top and bottom.
- Degree of protection: IP65.

Accessories

- 4th pole switched (max. 1), unswitched (max. 1).
- NO+NC or 2 NO auxiliary contact (max. 2).
- Terminal shroud.
- Wall brackets

References

| Rating (A) | N° of poles | Handle Black Reference | Handle Red/Yellow Reference | Extra pole (unswitched pole) | Auxiliary contacts | Terminal shroud | Bracket kit | Enclosure | | | | | | |
|------------|-------------|--------------------------|-----------------------------|------------------------------|------------------------------|--|--|--|-----------------|------------------------------|-----------|----------------------------|-----------------|----------------------------|
| | | | | | | | | Size | H x W x D (mm) | Cable-in top and bottom (mm) | | | | |
| 20 | 3 P + N | 3032 5002 | 3032 5102 | 2200 1001 | 1 AC NO + NC 2299 0001 | 2294 3005 (3 P) 2294 1005 (1 P) | 3031 0011 | CT 21 | 200 x 150 x 120 | 2 x Ø 25 + 2 x Ø 32 + Ø 16 | | | | |
| | 3 P + N | 3032 5202 ⁽¹⁾ | 3032 5302 ⁽¹⁾ | | | | | CT 21a | | | | | | |
| 32 | 3 P + N | 3032 5003 | 3032 5103 | 2200 1003 | | 1 AC 2 NO 2299 0011 | | 2294 3009 (3 P) 2294 1009 (1 P) | | | 3031 0011 | CT 21 | 200 x 150 x 120 | 2 x Ø 25 + 2 x Ø 32 + Ø 16 |
| | 3 P + N | 3032 5203 ⁽¹⁾ | 3032 5303 ⁽¹⁾ | | | | | | | | | CT 21a | | |
| 63 | 3 P + N | 3032 5006 | 3032 5106 | 2200 1006 | 1 AC 2 NO 2299 0011 | | 2294 3009 (3 P) 2294 1009 (1 P) | 3031 0011 | CT 21 | 200 x 150 x 120 | | 2 x Ø 25 + 2 x Ø 32 + Ø 16 | | |
| | 3 P + N | 3032 5206 ⁽¹⁾ | 3032 5306 ⁽¹⁾ | | | | | | CT 21a | | | | | |
| 100 | 3 P + N | 3032 5010 | 3032 5110 | 2200 1010 | | 1 AC 2 NO 2299 0011 | 2294 3016 (3 P) 2294 1011 (1 P) | | 3031 0011 | | CT 32 | | 300 x 200 x 120 | Ø 32 + 2 x Ø 50 + Ø 16 |
| | 3 P + N | 3032 5210 ⁽¹⁾ | 3032 5310 ⁽¹⁾ | | | | | | | | CT 32a | | | |

(1) Front panel: screw-on

Load break switch in metallic enclosure (continued)

■ **SIRCO** in painted steel enclosure



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General characteristics

- From 160 to 1600 A.
- 3 poles + solid neutral , 4 poles.
- Black lever (yellow/red on request).
- Triple lock in OFF position.
- Painted steel enclosure.
- Door latch system.
- Colour: RAL 7035.
- Cable gland plates: top and bottom.
- Degree of protection: IP65.
- Wall-mounted, 4 brackets included.

Accessories

- NO/NC auxiliary contact.
- Terminal screen.

References

| Rating (A) | N° of poles | Handle Black Reference | Auxiliary contacts | Protective screen (top or bottom) | Enclosure | | |
|------------|-------------|------------------------------|--|--------------------------------------|-----------|------------------|---------------------------------|
| | | | | | Size | H x W x D (mm) | Cable-in top and bottom (mm) |
| 160 | 3 P + N | 3032 5016 | 1 st AC NO/NC 2699 0031 2 nd AC 2 NO/NC 2699 0032 | 2698 3012 | CT 43 | 400 x 300 x 210 | 180 x 100 |
| | 4 P | 3032 4016 | | | | | |
| 250 | 3 P + N | 3032 5025 | | 2698 3020 | | | |
| | 4 P | 3032 4025 | | 2698 4020 | | | |
| 400 | 3 P + N | 3032 5040 | | 2698 3050 | | | |
| | 4 P | 3032 4040 | | 2698 4050 | | | |
| 630 | 3 P + N | 3032 5063 | | 2698 3050 | | | |
| | 4 P | 3032 4063 | | 2698 4050 | | | |
| 800 | 3 P + N | 3032 5080 | | 2698 3080 | | | |
| | 4 P | 3032 4080 | | 2698 4080 | | | |
| 1250 | 3 P + N | 3032 5084 | | 2698 3120 | | | |
| | 4 P | 3032 4084 | | 2698 4120 | | | |
| 1600 | 3 P + N | 3032 5088 | 2698 3120 | | | | |
| | 4 P | 3032 4088 | 2698 4120 | | | | |
| | | | | | CT 66 | 600 x 600 x 300 | 380 x 100 |
| | | | | | CT 86 | 800 x 600 x 350 | 560 x 100 |
| | | | | | CT 128 | 1200 x 800 x 300 | 660 x 100 |

Enclosed switches

Load break switches

20 to 1600 A

Load break switch in metallic enclosure (continued)

■ **SIRCO M** in stainless steel enclosure



General characteristics

- 32 to 100A.
- 3 poles + solid neutral, 4th switched pole optional extra (max. 1).
- Yellow/red or black lever.
- Triple lock in OFF position.
- Brushed stainless steel enclosure 304 (please ask for other options).
- Degree of protection: IP65.
- Pre-drilled cable-in holes at bottom.
- Door latch system.

Accessories

- 4th switched pole (max. 1), connected (max. 1).
- NO+NC or 2 NO auxiliary contact (max. 2).
- Wall brackets.

References

| Rating (A) | N° of poles | Handle Black Reference | Handle Red/Yellow Reference | Extra pole (switched pole) | Auxiliary contacts | Terminal shroud | Set of stainless steel brackets | Enclosure | | |
|------------|-------------|------------------------|-----------------------------|----------------------------|------------------------------|--|---------------------------------|-----------|-----------------|---------------------------|
| | | | | | | | | Size | H x W x D (mm) | Cable-in bottom (mm) |
| 32 | 3 P + N | 3032 8003 | 3032 8103 | 2200 1003 | 1 AC NO + NC 2299 0001 | 2294 3005 (3 P) 2294 1005 (1 P) | 3031 0012 | Cl 21 | 200 x 150 x 120 | 2 x Ø 25 + 2x Ø 32 + Ø 16 |
| 63 | 3 P + N | 3032 8006 | 3032 8106 | 2200 1006 | | 2294 3009 (3 P) 2294 1009 (1 P) | | | | |
| 100 | 3 P + N | 3032 8010 | 3032 8110 | 2200 1010 | | 2294 3016 (3 P) 2294 1011 (1 P) | | | | |
| | | | | | | | | Cl 32 | 300 x 200 x 120 | Ø 32 + 2 x Ø 50 + Ø 16 |

Characteristics

Electrical features according to IEC 60947-3

| | COMO | | | | | | | | |
|---|-----------------------------|------|------|------|------|------|-------|-------|-----|
| Thermal current I_{th} (40°C) | 20 A | 25 A | 32 A | 40 A | 63 A | 80 A | 100 A | 125 A | |
| Enclosed thermal current I_{th} (35°C) (A) | 20 | 25 | 32 | 40 | 63 | 80 | 100 | 125 | |
| Enclosed thermal current I_{th} (50°C) (A) | 17 | 22 | 28 | 35 | 54 | 69 | 86 | 108 | |
| Rated insulation voltage U_i (V) | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | |
| Rated impulse withstand voltage U_{imp} (kV) | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| Rated operational currents I_e (A) | | | | | | | | | |
| Rated voltage | Utilisation category | | | | | | | | |
| 400 VAC | AC-22 A / AC-22 B | 20 | 25 | 32 | 40 | 63 | 80 | 100 | 125 |
| 400 VAC | AC-23 A / AC-23 B | 15 | 20 | 22 | 40 | 44 | 53 | 70 | 84 |
| 690 VAC | AC-22 A / AC-22 B | | 12 | 13 | 18 | 22 | 23.5 | 34 | 41 |
| 690 VAC | AC-23 A / AC-23 B | | 9.5 | 11.5 | 13 | 17.5 | 22 | 25.5 | 35 |
| Operational power in AC-23 (kW) without pre-break auxiliary contact | | | | | | | | | |
| 400 VAC without pre-break AC (kW) ⁽⁵⁾ | 7.5 | 9.5 | 11.5 | 20 | 22 | 30 | 37 | 45 | |
| 690 VAC without pre-break AC (kW) ⁽⁵⁾ | | 12 | 13 | 18 | 22 | 25.5 | 34 | 41 | |
| gG DIN(6) fuse protected short-circuit withstand | | | | | | | | | |
| Prospective short-circuit current (kA rms) | 1 | 8 | 8 | 8 | 8 | 10 | 20 | 20 | |
| Associated fuse rating (A) | 20 | 25 | 32 | 40 | 63 | 80 | 100 | 125 | |
| Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s | | | | | | | | | |
| Current rated as short-time withstand I_{cw} 0.3s (kA rms) | 0.68 | 0.68 | 1.28 | 1.28 | 2.52 | 2.52 | 4 | 4 | |
| Short-circuit operation (switch only) | | | | | | | | | |
| Current rated as short-time withstand I_{cs} 1s (kA rms) | 0.34 | 0.34 | 0.64 | 0.64 | 1.26 | 1.26 | 2 | 2 | |
| Connection | | | | | | | | | |
| Minimum Cu cable cross-section (mm ²) | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 4 | 4 | |
| Maximum Cu cable cross-section (mm ²) | 4 | 10 | 10 | 10 | 16 | 25 | 35 | 50 | |

| | SIRCO M / SIRCO | | | | | | | | | | | |
|---|-----------------------------|------|------|-------|--------|-------|-------|-------|-------|--------|--------|------|
| Thermal current I_{th} (40°C) | 20 A | 32 A | 63 A | 100 A | 160 A | 250 A | 400 A | 630 A | 800 A | 1250 A | 1600 A | |
| Frame size | M1 | M1 | M2 | M3 | B3 | B4 | B5 | B5 | B6 | B7 | B7 | |
| Enclosed thermal current I_{th} (35°C) (A) | 20 | 32 | 63 | 100 | 160 | 250 | 400 | 630 | 770 | 1000 | 1450 | |
| Enclosed thermal current I_{th} (50°C) (A) | 17 | 28 | 54 | 86 | 138 | 216 | 345 | 544 | 665 | 863 | 1252 | |
| Rated insulation voltage U_i (V) | 800 | 800 | 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | 1000 | 1000 | |
| Rated impulse withstand voltage U_{imp} (kV) | 8 | 8 | 8 | 8 | 8 | 8 | 12 | 12 | 12 | 12 | 12 | |
| Rated operational currents I_e (A) | | | | | | | | | | | | |
| Rated voltage | Utilisation category | | | | | | | | | | | |
| 415 VAC | AC-22 A / AC-22 B | 20 | 32 | 63 | 100 | 160 | 250 | 400 | 630 | 800 | 1250 | 1600 |
| 415 VAC | AC-23 A / AC-23 B | 20 | 32 | 63 | 100 | 160 | 250 | 400 | 500 | 800 | 1250 | 1250 |
| 500 VAC | AC-22 A / AC-22 B | 20 | 32 | 63 | 100 | | | | | | | |
| 500 VAC | AC-23 A / AC-23 B | 20 | 25 | 63 | 80 | | | | | | | |
| 690 VAC | AC-22 A / AC-22 B | 20 | 32 | 40/63 | 80/100 | | | | | | | |
| 690 VAC | AC-23 A / AC-23 B | 20 | 25 | 40 | 63 | | | | | | | |
| Operational power in AC-23 (kW) | | | | | | | | | | | | |
| 400 VAC without pre-break AC (kW) ⁽⁵⁾ | 9 | 15 | 30 | 45 | 80 | 132 | 220 | 280 | 450 | 710 | 710 | |
| 500 VAC without pre-break AC (kW) ⁽⁵⁾ | 9 | 15 | 30 | 45 | | | | | | | | |
| 690 VAC without pre-break AC (kW) ⁽⁵⁾ | 11 | 15 | 30 | 45 | | | | | | | | |
| gG DIN(6) fuse protected short-circuit withstand | | | | | | | | | | | | |
| Prospective short-circuit current (kA rms) | 50 | 50 | 50 | 25 | 100 | 50 | 100 | 70 | 50 | 100 | 100 | |
| Associated fuse rating (A) | 20 | 32 | 63 | 100 | 160 | 250 | 400 | 630 | 800 | 1250 | 2x800 | |
| Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s | | | | | | | | | | | | |
| Current rated as short-time withstand I_{cw} 0.3s (kA rms) | 2.5 | 2.5 | 3 | 5 | 15 | 17 | 25 | 25 | 50 | 100 | 100 | |
| Short-circuit operation (switch only) | | | | | | | | | | | | |
| Current rated as short-time withstand I_{cs} 1s (kA rms) | 1.26 | 1.26 | 1.5 | 2.75 | 7 | 9 | 13 | 13 | 35 | 50 | 50 | |
| Dynamic withstand current in I_{cc} (kA peak) (6) | 6 | 6 | 9 | 12 | 20 | 30 | 45 | 45 | 55 | 110 | 110 | |
| Connection | | | | | | | | | | | | |
| Minimum Cu cable cross-section (mm ²) | 1.5 | 1.5 | 2.5 | 10 | 50 | 95 | 185 | 2x150 | 2x185 | | | |
| Maximum Cu cable cross-section (mm ²) | 16 | 16 | 35 | 70 | 95 | 150 | 240 | 2x300 | 2x300 | 4x185 | 6x185 | |

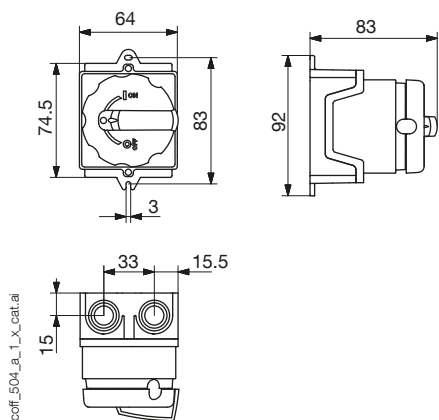
Enclosed switches

Load break switches

20 to 1600 A

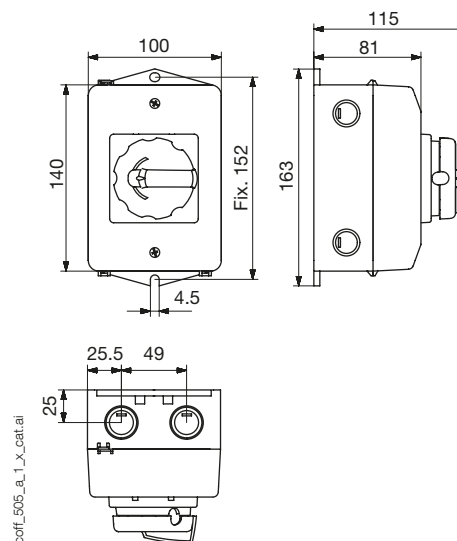
Dimensions

Size CPC 0



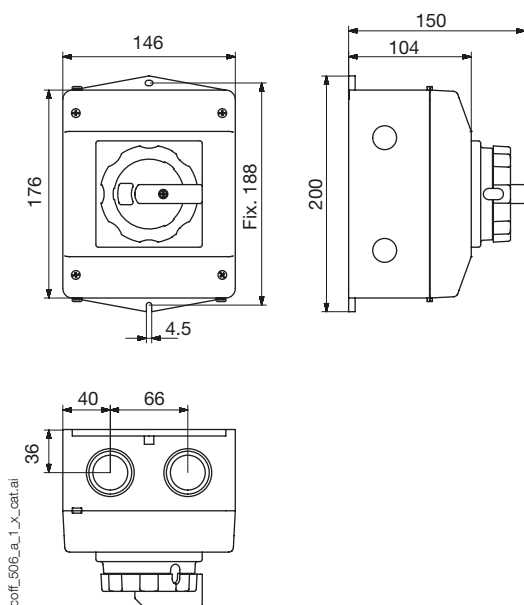
- 4x M25 pre-drilled holes (top and bottom)

Size CPC 1



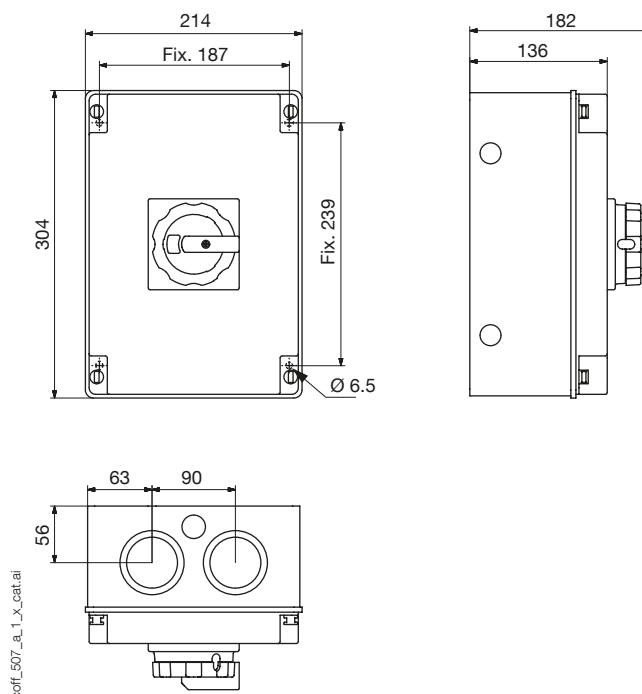
- 4x M20 pre-drilled holes (on the side)
- 4x M25 pre-drilled holes (top and bottom)
- 4 pre-drilled holes to expel water

Size CPC 2



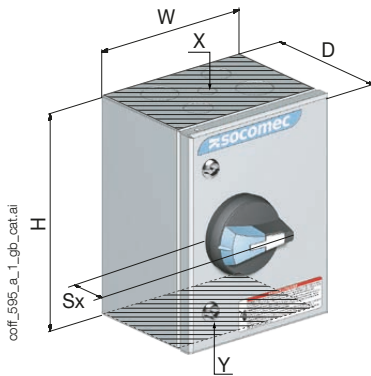
- 4x M20 pre-drilled holes (on the side)
- 4 M32/M40 pre-drilled holes (top and bottom)
- 2 pre-drilled holes to expel water

Size CPC 3



- 4x M20 pre-drilled holes (on the side)
- 4x M50/M63 pre-drilled holes and 2x M20 pre-drilled holes (on the side)
- 2 pre-drilled holes to expel water

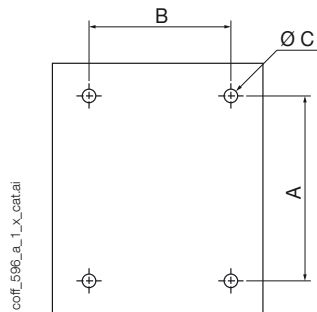
Enclosures



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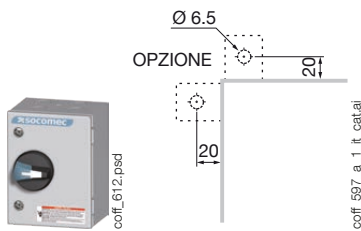
| Size | Type | H x W x D (mm) | Sx (mm) | A (mm) | B (mm) | Diameter C (mm) | X - Y Cable-in top and bottom ⁽¹⁾ |
|---------------------|------|------------------|---------|--------|--------|-----------------|--|
| CT 21, CI21, CT 21a | 1 | 200 x 150 x 120 | 36 | 135 | 85 | 6.5 | 2 x Ø 25 + 2 x Ø 32 + Ø 16 |
| CT 32, CI32, CT 32a | | 300 x 200 x 120 | | 235 | 135 | | 1 x Ø 32 + 2 x Ø 50 + Ø 16 |
| CP 32 | 3 | 360 x 270 x 171 | 45 | 337 | 247 | | - |
| CP 53 | | 540 x 360 x 171 | | 516 | 337 | | |
| CP 75 | | 720 x 540 x 201 | | 696 | 516 | | |
| CT 43 | 2 | 400 x 300 x 210 | 60 | 362 | 262 | 12.5 | |
| CT 66 | | 600 x 600 x 300 | | 562 | 562 | | 380 x 100 |
| CT 86 | | 800 x 600 x 350 | | 762 | 562 | | 660 x 100 |
| CT 128 | | 1200 x 800 x 300 | | 1162 | 762 | | |

(1) For stainless steel enclosure, cable-in at bottom only



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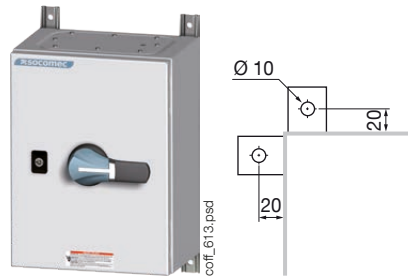
Type 1



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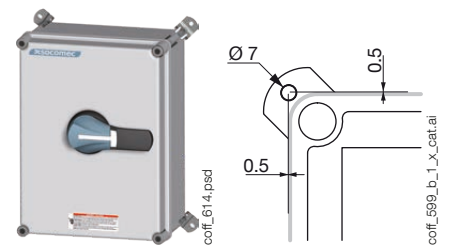
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Type 2



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Type 3



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