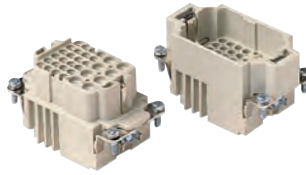


CX 8 poles (16 A – 230/400 V) + 24 poles (10 A – 160 V) + ⊕

enclosures: size "57.27"	page:
C-TYPE IP65 or IP66/IP69	393 - 401
C7 IP67, two levers	438
V-TYPE IP65 or IP66/IP69, single lever	448 - 453
BIG hoods	468 - 469
T-TYPE IP65 insulating	482 - 483
T-TYPE / W IP66/IP69 insulating	490
HYGIENIC T-TYPE / H IP66/IP69	502
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	507
W-TYPE for aggressive environments	522
E-Xtreme® corrosion proof	532 - 533, 543, 552 - 553
EMC	579
Central lever	606 - 608
LS-TYPE	620 - 621
IP68	636 - 639
panel supports: COB	page: 652 - 653

inserts, crimp connections

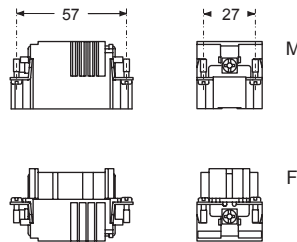


description	part No.
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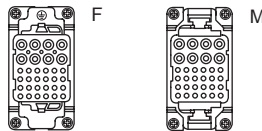
without contacts (to be ordered separately)
female inserts for female contacts
male inserts for male contacts

CXF 8/24
CXM 8/24

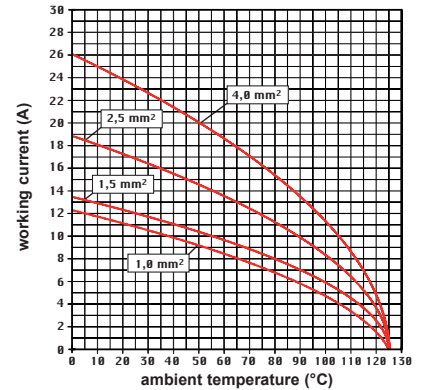
- characteristics according to EN 61984:
16 A 230/400 V 4 kV 3
16 A 400 V 4 kV 2
10 A 160 V 2,5 kV 3
10 A 250 V 4 kV 2
- certified
- rated voltage according to UL/CSA: 600 V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance:
 ≤ 1 mΩ (8 poles)
 ≤ 3 mΩ (24 poles)
- **it is recommended to crimp the contacts with crimping tools homologated by ILME**
 (please see the crimping tool section 16 A contacts, CCF, CCM, CC...AN series and 10 A contacts CDF, CDM series on pages 708 - 741)
- PCBs interface, see article CIF 2.4 (10 A contacts)
- for max. current load see the connector inserts derating diagrams on the side; for more information see page 28



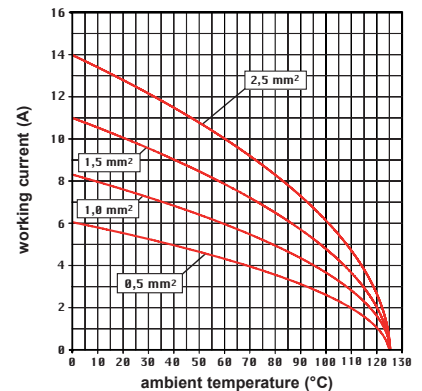
contacts side (front view)



CX 8/24 power poles connector inserts
Maximum current load derating diagram



CX 8/24 auxiliary poles connector inserts
Maximum current load derating diagram

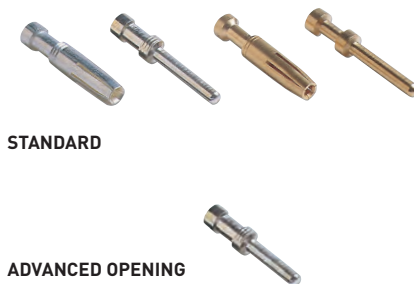


Note: for connector with power poles and auxiliary poles simultaneously loaded in the combinations

power poles	auxiliary poles
4,0 mm ²	2,5 mm ²
2,5 mm ²	1,5 mm ²
1,5 mm ²	1,0 mm ²
1,0 mm ²	0,5 mm ²

with power / auxiliary current ratios = 1,6 / 1

**16 A crimp contacts
standard or for advanced opening
silver and gold plated**



STANDARD

ADVANCED OPENING

**10 A crimp contacts
silver and gold plated**



description	part No.	part No.	part No.	part No.
16 A female contacts				
0,14-0,37 mm ² AWG 26-22 one groove	CCFA 0.3	CCFD 0.3		
0,5 mm ² AWG 20 with no grooves	CCFA 0.5	CCFD 0.5		
0,75 mm ² AWG 18 one groove (back side)	CCFA 0.7	CCFD 0.7		
1 mm ² AWG 18 one groove	CCFA 1.0	CCFD 1.0		
1,5 mm ² AWG 16 two grooves	CCFA 1.5	CCFD 1.5		
2,5 mm ² AWG 14 three grooves	CCFA 2.5	CCFD 2.5		
3 mm ² AWG 12 one wide groove	CCFA 3.0	CCFD 3.0		
4 mm ² AWG 12 with no grooves	CCFA 4.0	CCFD 4.0		
16 A male contacts				
0,14-0,37 mm ² AWG 26-22 one groove	CCMA 0.3	CCMD 0.3		
0,5 mm ² AWG 20 with no grooves	CCMA 0.5	CCMD 0.5		
0,75 mm ² AWG 18 one groove (back side)	CCMA 0.7	CCMD 0.7		
1 mm ² AWG 18 one groove	CCMA 1.0	CCMD 1.0		
1,5 mm ² AWG 16 two grooves	CCMA 1.5	CCMD 1.5		
2,5 mm ² AWG 14 three grooves	CCMA 2.5	CCMD 2.5		
3 mm ² AWG 12 one wide groove	CCMA 3.0	CCMD 3.0		
4 mm ² AWG 12 with no grooves	CCMA 4.0	CCMD 4.0		
16 A male crimp contacts for advanced opening				
0,5 mm ² AWG 20 with no grooves	CC 0.5 AN			
0,75 mm ² AWG 18 one groove (back side)	CC 0.7 AN			
1 mm ² AWG 18 one groove	CC 1.0 AN			
1,5 mm ² AWG 16 two grooves	CC 1.5 AN			
2,5 mm ² AWG 14 three grooves	CC 2.5 AN			
10 A female contacts				
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDFA 0.3	CDFD 0.3	
0,5 mm ² AWG 20 identification No. 2		CDFA 0.5	CDFD 0.5	
0,75 mm ² AWG 18 identification No. ②		CDFA 0.7	CDFD 0.7	
1 mm ² AWG 18 identification No. 3		CDFA 1.0	CDFD 1.0	
1,5 mm ² AWG 16 identification No. 4		CDFA 1.5	CDFD 1.5	
2,5 mm ² AWG 14 identification No. 5		CDFA 2.5	CDFD 2.5	
10 A male contacts				
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDMA 0.3	CDMD 0.3	
0,5 mm ² AWG 20 identification No. 2		CDMA 0.5	CDMD 0.5	
0,75 mm ² AWG 18 identification No. ②		CDMA 0.7	CDMD 0.7	
1 mm ² AWG 18 identification No. 3		CDMA 1.0	CDMD 1.0	
1,5 mm ² AWG 16 identification No. 4		CDMA 1.5	CDMD 1.5	
2,5 mm ² AWG 14 identification No. 5		CDMA 2.5	CDMD 2.5	

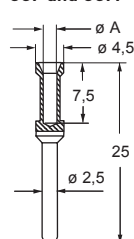
CCF, CCM and CC...AN contacts

conductor section mm ²	conductor slot $\varnothing A$ (mm)	conductors stripping length (mm)
0,14-0,37	0,9	7,5
0,5	1,1	7,5
0,75	1,3	7,5
1,0	1,45	7,5
1,5	1,8	7,5
2,5	2,2	7,5
3	2,55	7,5
4	2,85	7,5

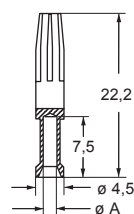
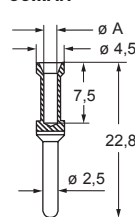
CDF and CDM contacts

conductor section mm ²	conductor slot $\varnothing A$ (mm)	conductors stripping length B (mm)
0,14-0,37	0,9	8
0,5	1,1	8
0,75	1,3	8
1,0	1,45	8
1,5	1,8	8
2,5	2,2	6

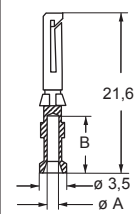
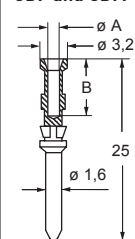
CCF and CCM



CC...AN



CDF and CDM



* for basic or high thickness gold plating, please refer to page 675

* for basic or high thickness gold plating, please refer to page 674

CX 6/12

TECHNICAL FEATURES

This combined connector, in addition to the traditional lateral protective earth contact with screw connection, is provided by contact seats for:

- ▶ 6 **CX** series crimp contacts up to the maximum size 10 for working current up to **40 A** and rated voltage up to **690 V**, and
- ▶ 12 **CD** series crimp contacts for working current up to **10 A** and rated voltage up to **230/400V**.

The removable crimp contacts of the **CX** series are held by resilient elements of the connector insert contact holder, while the removable crimp contacts of the **CD** series are equipped with their own retention means.

Compared to the **CX 6/36** combined connector of the same size "77.27" (see page 198) on the 6 power poles it allows the use of wires

with a rated cross-sectional area (CSA) up to 10 mm² / 8 AWG whereas the CX 6/36 on the same 6 power poles is limited to size 6.0 for conductors up to 6 mm² / 10 AWG rated CSA.

The lower number of auxiliary contacts (12 instead of 36) of this connector insert, is largely rewarded by the fact that these contacts can be used for voltages up to 230/400 V, hence also for motors of non-negligible power, while in the CX 6/36 connector due to their higher density, the auxiliary contacts (of the same CD series) are limited to use at 160 V.

The presence of 230/400 V rated auxiliaries therefore suggests for these 12 contacts the possible use also in drives of up to 4 three-phase motors for the control of e.g. 4 lower power axes, while the two high power axes can be served by the 6 power poles of this connector.

SUM-UP

- ☑ **Crimp connection**
- ☑ **Great resistance to strong vibrations**
- ☑ **For wires: up to 10 mm² (AWG 8)**
- ☑ **Auxiliary crimp contacts: silver or gold plated**



Inserts series		CX 6/12	
No. of poles	main contact	6 + ⊕ (40 A)	
	auxiliary contacts	12 (10 A)	
rated current		40 A	10 A
EN 61984 pollution degree 3	rated voltage	690 V	230 V/400 V
	rated impulse withstand voltage	8 kV	4 kV
	pollution degree	3	3
contact resistance		≤ 0,3 mΩ (40 A) ≤ 1 mΩ (16 A)	
insulation resistance		≥ 10 GΩ	
ambient temperature limit (°C)	min	-40 °C	
	max	+125 °C	
degree of protection	with enclosures (according to version)	IP65, IP66/IP69, IP66/IP67/IP69, IP66/IP68/IP69	
	without enclosures (in mated condition)	IP20 (IPXXB)	
conductor connections		crimp	
conductor cross-section	mm ²	1,5 10	
	AWG	16 - 8	
conductor cross-section (CC contact series)	mm ²	0,14 2,5	
	AWG	26 - 14	
CX/CC stripping length	mm	8 / 9 / 15	
mechanical endurance (mating cycles)		≥ 500	

CX 6 poles (40A - 690V) + 12 poles (10A - 230/400V) + ⊕

enclosures: size "77.27"	page:
C-TYPE IP65 or IP66/IP69	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65 or IP66/IP69, single lever	454 - 458
BIG hoods	470 - 471
T-TYPE IP65 insulating	484 - 485
T-TYPE / W IP66/IP69 insulating	491
HYGIENIC T-TYPE / H IP66/IP69	503
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	508
W-TYPE for aggressive environments	523
E-Xtreme® corrosion proof	534 - 535, 544, 554 - 555
EMC	580
Central lever	609 - 611
LS-TYPE	622 - 623
IP68	640 - 643
panel supports: COB	page: 652 - 653

inserts, crimp connections

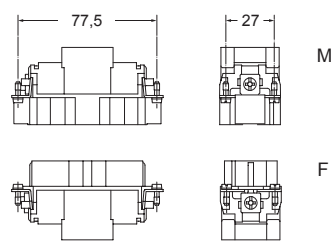


40A and 10A crimp contacts
silver and gold plated

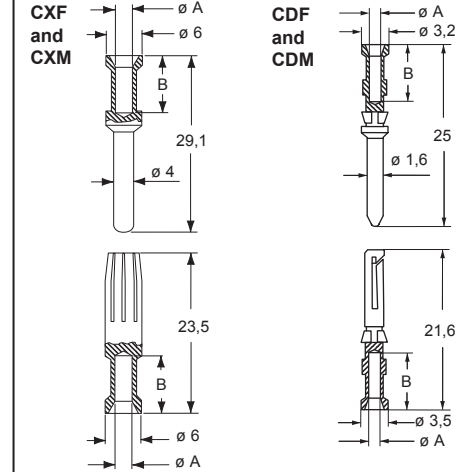
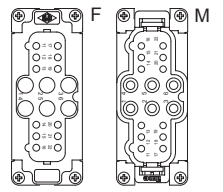


description	part No.	part No.	part No.
without contacts (to be ordered separately)			
female inserts for female contacts	CXF 6/12		
male inserts for male contacts	CXM 6/12		
40A female crimp contacts		CXFA 1.5	silver plated
1,5 mm ² AWG 16		CXFA 2.5	
2,5 mm ² AWG 14		CXFA 4.0	
4 mm ² AWG 12		CXFA 6.0	
6 mm ² AWG 10		CXFA 10	
40A male crimp contacts		CXMA 1.5	+ for basic or high thickness gold plating, please refer to page 674
1,5 mm ² AWG 16		CXMA 2.5	
2,5 mm ² AWG 14		CXMA 4.0	
4 mm ² AWG 12		CXMA 6.0	
6 mm ² AWG 10		CXMA 10	
10A female contacts		CDFA 0.3	gold plated+
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDFA 0.5	
0,5 mm ² AWG 20 identification No. 2		CDFA 0.7	
0,75 mm ² AWG 18 identification No. ②		CDFA 1.0	
1 mm ² AWG 18 identification No. 3		CDFA 1.5	
1,5 mm ² AWG 16 identification No. 4		CDFA 2.5	
2,5 mm ² AWG 14 identification No. 5			
10A male contacts		CDMA 0.3	CDMD 0.3
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDMA 0.5	
0,5 mm ² AWG 20 identification No. 2		CDMA 0.7	
0,75 mm ² AWG 18 identification No. ②		CDMA 1.0	
1 mm ² AWG 18 identification No. 3		CDMA 1.5	
1,5 mm ² AWG 16 identification No. 4		CDMA 2.5	
2,5 mm ² AWG 14 identification No. 5			

- characteristics according to EN 61984:
- 40A 690V 8kV 3**
- 10A 230/400V 4kV 3**
- certified
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance:
 - ≤ 0,3 mΩ (6 poles)
 - ≤ 1 mΩ (12 poles)
- cable diameter: up to 7,5 mm
- contact section: up to 10 mm²
- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 40A contacts, CXF, CXM series and 10A contacts CDF, CDM series on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28

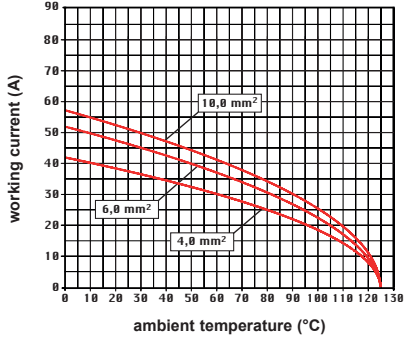


contacts side (front view)



CXF and CXM contacts		
conductor section mm ²	conductor slot ø A (mm)	conductors stripping length B (mm)
1,5	1,8	9
2,5	2,2	9
4	2,85	9,6
6	3,5	9,6
10	4,3	15
CDF and CDM contacts		
0,14-0,37	0,9	8
0,5	1,1	8
0,75	1,3	8
1,0	1,45	8
1,5	1,8	8
2,5	2,2	6

CX 6/12 power poles connector inserts
Maximum current load derating diagram



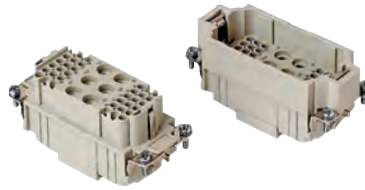
CX 6 poles (40A - 690V) + 36 poles (10A - 160V) + ⊕

enclosures: size "77.27"	page:
C-TYPE IP65 or IP66/IP69	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65 or IP66/IP69, single lever	454 - 458
BIG hoods	470 - 471
T-TYPE IP65 insulating	484 - 485
T-TYPE / W IP66/IP69 insulating	491
HYGIENIC T-TYPE / H IP66/IP69	503
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	508
W-TYPE for aggressive environments	523
E-Xtreme® corrosion proof	534 - 535, 544, 554 - 555
EMC	580
Central lever	609 - 611
LS-TYPE	622 - 623
IP68	640 - 643

panel supports: COB	page: 652 - 653
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- PCBs interface, see article CIF 2.4 (10A contacts)

inserts, crimp connections



40A and 10A crimp contacts silver and gold plated



description	part No.	part No.	part No.
without contacts (to be ordered separately)			
female inserts for female contacts	CXF 6/36		
male inserts for male contacts	CXM 6/36		
40A female crimp contacts		CXFA 1.5	
1,5 mm ² AWG 16		CXFA 2.5	
2,5 mm ² AWG 14		CXFA 4.0	
4 mm ² AWG 12		CXFA 6.0	
6 mm ² AWG 10			
40A male crimp contacts		CXMA 1.5	
1,5 mm ² AWG 16		CXMA 2.5	
2,5 mm ² AWG 14		CXMA 4.0	
4 mm ² AWG 12		CXMA 6.0	
6 mm ² AWG 10			
10A female contacts		CDFA 0.3	CDFD 0.3
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDFA 0.5	CDFD 0.5
0,5 mm ² AWG 20 identification No. 2		CDFA 0.7	CDFD 0.7
0,75 mm ² AWG 18 identification No. ②		CDFA 1.0	CDFD 1.0
1 mm ² AWG 18 identification No. 3		CDFA 1.5	CDFD 1.5
1,5 mm ² AWG 16 identification No. 4		CDFA 2.5	CDFD 2.5
2,5 mm ² AWG 14 identification No. 5			
10A male contacts		CDMA 0.3	CDMD 0.3
0,14-0,37 mm ² AWG 26-22 identification No. 1		CDMA 0.5	CDMD 0.5
0,5 mm ² AWG 20 identification No. 2		CDMA 0.7	CDMD 0.7
0,75 mm ² AWG 18 identification No. ②		CDMA 1.0	CDMD 1.0
1 mm ² AWG 18 identification No. 3		CDMA 1.5	CDMD 1.5
1,5 mm ² AWG 16 identification No. 4		CDMA 2.5	CDMD 2.5
2,5 mm ² AWG 14 identification No. 5			

silver plated

+ for basic or high thickness gold plating, please refer to page 674

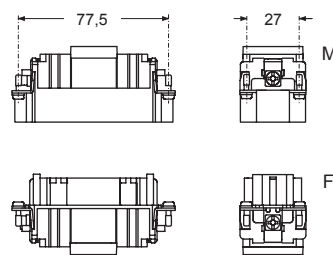
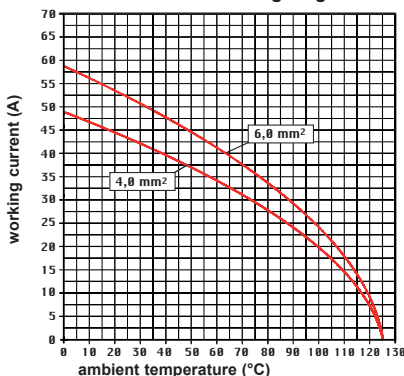
gold plated+

- characteristics according to EN 61984:

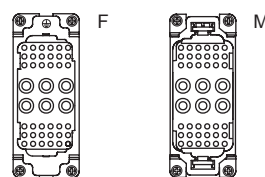
40A 690V 8kV 3
10A 160V 2,5kV 3
10A 250V 4kV 2

- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ (6 poles), ≤ 1 mΩ (36 poles)
- for max. current load see the connector inserts derating diagram below; for more information see page 28

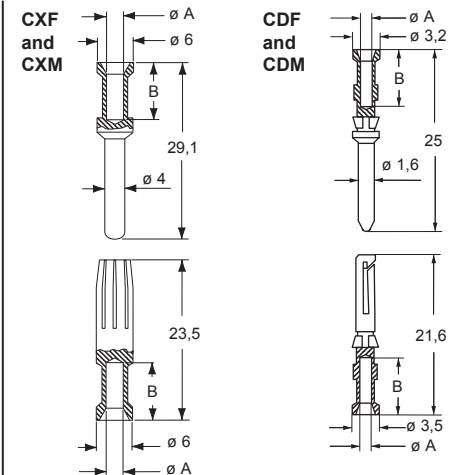
CX 6/36 power poles connector inserts
Maximum current load derating diagram



contacts side (front view)



- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF, CXM series and 10A contacts CDF, CDM series on pages 708 - 741



CXF and CXM contacts

conductor section mm ²	conductor slot ø A (mm)	conductors stripping length B (mm)
1,5	1,8	9
2,5	2,2	9
4	2,85	9,6
6	3,5	9,6

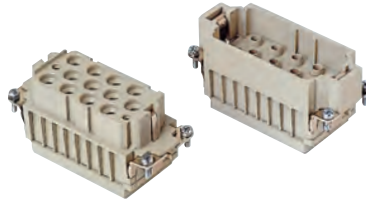
CDF and CDM contacts

conductor section mm ²	conductor slot ø A (mm)	conductors stripping length B (mm)
0,14-0,37	0,9	8
0,5	1,1	8
0,75	1,3	8
1,0	1,45	8
1,5	1,8	8
2,5	2,2	6

CX 12 poles (40A - 690V) + 2 poles (10A - 250V) + ⊕

enclosures: size "77.27"	page:
C-TYPE IP65 or IP66/IP69	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65 or IP66/IP69, single lever	454 - 458
BIG hoods	470 - 471
T-TYPE IP65 insulating	484 - 485
T-TYPE / W IP66/IP69 insulating	491
HYGIENIC T-TYPE / H IP66/IP69	503
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	508
W-TYPE for aggressive environments	523
E-Xtreme® corrosion proof	534 - 535, 544, 554 - 555
EMC	580
Central lever	609 - 611
LS-TYPE	622 - 623
IP68	640 - 643
panel supports: COB	page: 652 - 653

inserts, crimp connections



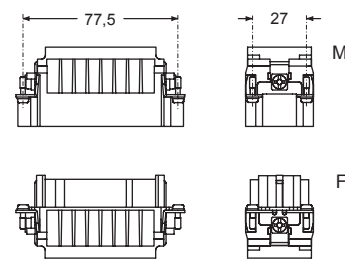
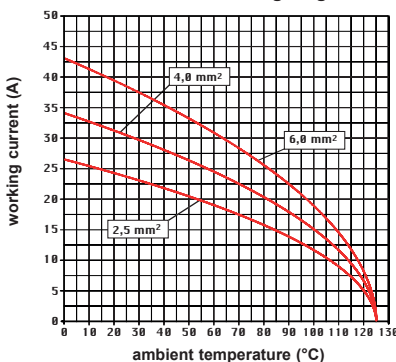
40A and 10A crimp contacts
silver and gold plated



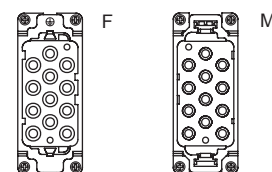
description	part No.	part No.	part No.
without contacts (to be ordered separately)			
female inserts for female contacts	CXF 12/2		
male inserts for male contacts	CXM 12/2		
40A female crimp contacts			
1,5 mm ² AWG 16		CXFA 1.5	silver plated
2,5 mm ² AWG 14		CXFA 2.5	
4 mm ² AWG 12		CXFA 4.0	
6 mm ² AWG 10		CXFA 6.0	
40A male crimp contacts			
1,5 mm ² AWG 16		CXMA 1.5	+ for basic or high thickness gold plating, please refer to page 674
2,5 mm ² AWG 14		CXMA 2.5	
4 mm ² AWG 12		CXMA 4.0	
6 mm ² AWG 10		CXMA 6.0	
10A female contacts			
0,14-0,37 mm ² AWG 26-22	identification No. 1	CDFA 0.3	gold plated+
0,5 mm ² AWG 20	identification No. 2	CDFA 0.5	
0,75 mm ² AWG 18	identification No. ②	CDFA 0.7	
1 mm ² AWG 18	identification No. 3	CDFA 1.0	
1,5 mm ² AWG 16	identification No. 4	CDFA 1.5	
2,5 mm ² AWG 14	identification No. 5	CDFA 2.5	
10A male contacts			
0,14-0,37 mm ² AWG 26-22	identification No. 1	CDMA 0.3	gold plated+
0,5 mm ² AWG 20	identification No. 2	CDMA 0.5	
0,75 mm ² AWG 18	identification No. ②	CDMA 0.7	
1 mm ² AWG 18	identification No. 3	CDMA 1.0	
1,5 mm ² AWG 16	identification No. 4	CDMA 1.5	
2,5 mm ² AWG 14	identification No. 5	CDMA 2.5	

- characteristics according to EN 61984:
- 40A 690V 8kV 3**
- 10A 250V 4kV 3**
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ (12 poles), ≤ 1 mΩ (2 poles)
- for max. current load see the connector inserts derating diagram below; for more information see page 28

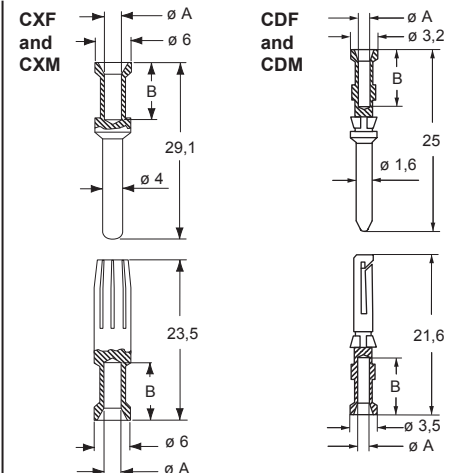
CX 12/2 power poles connector inserts
Maximum current load derating diagram



contacts side (front view)



- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF, CXM series and 10A contacts CDF, CDM series on pages 708 - 741



CXF and CXM contacts

conductor section	conductor slot	conductors stripping length
mm ²	ø A (mm)	B (mm)
1,5	1,8	9
2,5	2,2	9
4	2,85	9,6
6	3,5	9,6

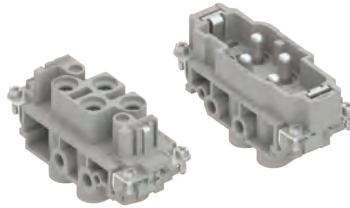
CDF and CDM contacts

0,14-0,37	0,9	8
0,5	1,1	8
0,75	1,3	8
1,0	1,45	8
1,5	1,8	8
2,5	2,2	6

CX 4 poles (80A - 830V) + ⊕

enclosures: size "77.27"	page:
C-TYPE IP65 or IP66/IP69	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65 or IP66/IP69, single lever	454 - 458
BIG hoods	470 - 471
T-TYPE IP65 insulating	484 - 485
T-TYPE / W IP66/IP69 insulating	491
HYGIENIC T-TYPE / H IP66/IP69	503
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	508
W-TYPE for aggressive environments	523
E-Xtreme® corrosion proof	534 - 535, 544, 554 - 555
EMC	580
Central lever	609 - 611
LS-TYPE	622 - 623
IP68	640 - 643
panel supports: COB	page: 652 - 653

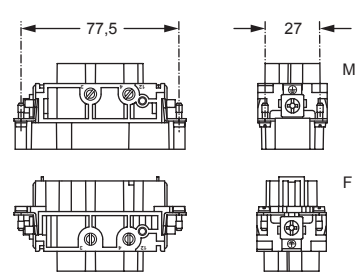
inserts,
screw terminal connection



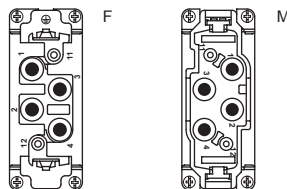
Q RATING 830V
Q SILVER PLATED CONTACTS

description	part No.
female inserts with female contacts	CXF 4/0
male inserts with male contacts	CXM 4/0

- characteristics according to EN 61984:
- 80A 830V 8kV 3**
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

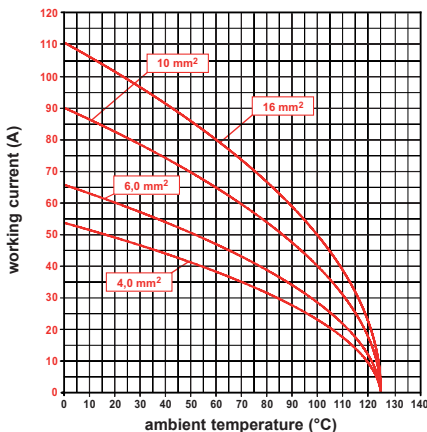


contacts side (front view)



- 80A contacts**
- without plate for section conductors:
4 - 16 mm² - AWG 12 - 6
 - conductors stripping length: 14 mm
 - terminal screw torque: 2,5 Nm (22.1 lb.in),
for more information see page 20 and 21

CX 4/0 poles connector inserts
Maximum current load derating diagram

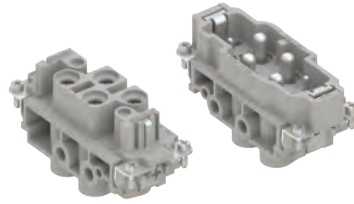


CX 4/0

CX 4 poles (80A - 830V) + 2 poles (16A - 400V) + ⊕

enclosures: size "77.27"	page:
C-TYPE IP65 or IP66/IP69	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65 or IP66/IP69, single lever	454 - 458
BIG hoods	470 - 471
T-TYPE IP65 insulating	484 - 485
T-TYPE / W IP66/IP69 insulating	491
HYGIENIC T-TYPE / H IP66/IP69	503
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	508
W-TYPE for aggressive environments	523
E-Xtreme® corrosion proof	534 - 535, 544, 554 - 555
EMC	580
Central lever	609 - 611
LS-TYPE	622 - 623
IP68	640 - 643
panel supports: COB	page: 652 - 653

inserts, screw terminal connection



RATING 830V
Q SILVER PLATED CONTACTS

description	part No.
female inserts with female contacts	CXF 4/2
male inserts with male contacts	CXM 4/2

- characteristics according to EN 61984:

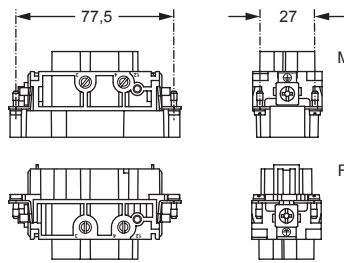
80A 830V 8kV 3
16A 400V 6kV 3
16A 400/690V 6kV 2

- certified

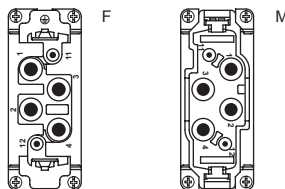
- rated voltage according to UL/CSA: 600V
- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40 \text{ }^\circ\text{C} \dots +125 \text{ }^\circ\text{C}$
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance:
 - $\leq 0,3 \text{ m}\Omega$ (4 poles)
 - $\leq 1 \text{ m}\Omega$ (2 poles)
- for max. current load see the connector inserts derating diagrams on the side; for more information see page 28

NOTE

Any cross-sectional area on the signal side higher than that combined to the relevant cross-sectional area on the power side may be used, but with the derating curve for the cross-sectional area given as combined to that on the power side.



contacts side (front view)



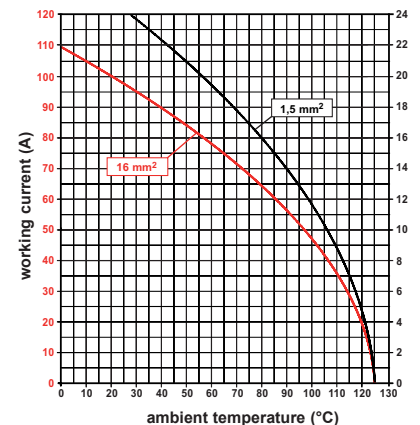
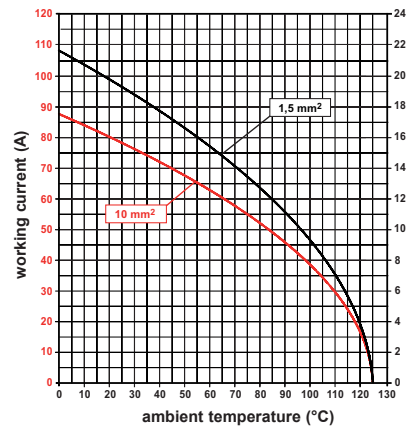
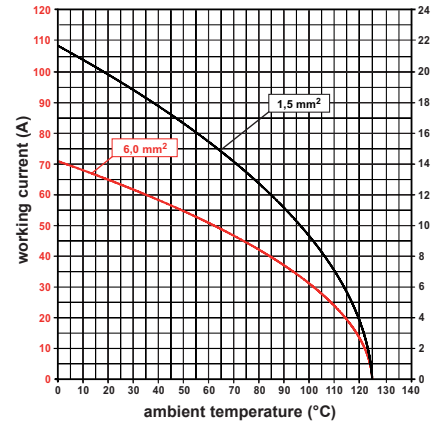
80A contacts

- without plate for section conductors: 4 - 16 mm² - AWG 12 - 6
- conductors stripping length: 14 mm
- terminal screw torque: 2,5 Nm (22.1 lb.in), for more information see page 20 and 21

16A contacts

- without plate for section conductors: 0,25 - 2,5 mm² - AWG 24 - 14
- conductors stripping length: 7 mm
- terminal screw torque: 0,5 Nm (4.4 lb.in), for more information see page 20 and 21

CX 4/2 poles connector inserts
Maximum current load derating diagram



enclosures:
size "77.27"

page:

inserts,
screw terminal connection

For 180 °C

588



RATING 830V

180 °C

SILVER PLATED CONTACTS

description

part No.

use in temperatures up to 180 °C
female inserts with female contacts, brown
male inserts with male contacts, brown

CXF 4/0 RY
CXM 4/0 RY

- characteristics according to EN 61984:

80A 830V 8kV 3

- certified

- rated voltage according to UL/CSA: 600V

- insulation resistance: $\geq 10 \text{ G}\Omega$

- ambient temperature limit: -40 °C ... +180 °C

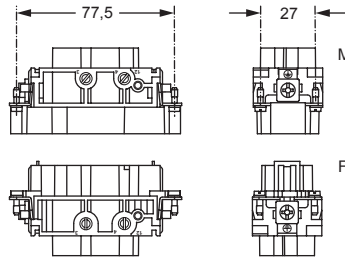
- made of self-extinguishing thermoplastic resin
UL 94V-0

- mechanical life: ≥ 500 cycles

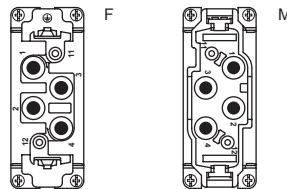
- contact resistance:

$\leq 0,3 \text{ m}\Omega$

- for max. current load see the connector inserts derating
diagram below; for more information see page 28



contacts side (front view)



80A contacts

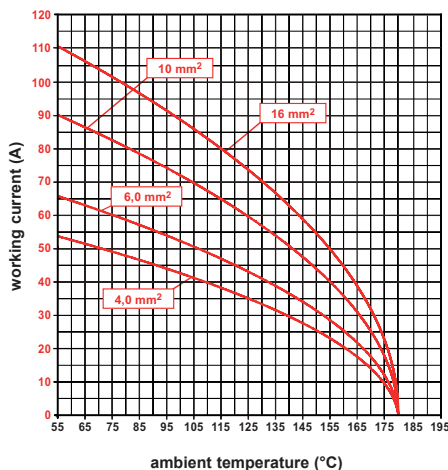
- without plate for section conductors:

4-16 mm² - AWG 12-6

- conductors stripping length: 14 mm

- terminal screw torque: 2,5 Nm (22.1 lb.in),
for more information see page 20 and 21

CX...RY 4/0 poles connector inserts
Maximum current load derating diagram



enclosures:
size "77.27"

page:

For 180 °C

588

inserts,
screw terminal connection



RATING 830V
 180 °C
 SILVER PLATED CONTACTS

description

part No.

use in temperatures up to 180 °C
female inserts with female contacts, brown
male inserts with male contacts, brown

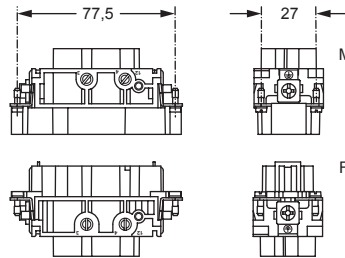
CXF 4/2 RY
CXM 4/2 RY

- characteristics according to EN 61984:
80A 830V 8kV 3
16A 400V 6kV 3
16A 400/690V 6kV 2
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: -40 °C ... +180 °C
- made of self-extinguishing thermoplastic resin UL 94V-0

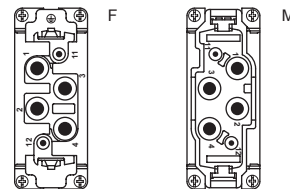
- mechanical life: ≥ 500 cycles
- contact resistance:
 $\leq 0,3 \text{ m}\Omega$ (4 poles)
 $\leq 1 \text{ m}\Omega$ (2 poles)
- for max. current load see the connector inserts derating diagrams on the side; for more information see page 28

NOTE

Any cross-sectional area on the signal side higher than that combined to the relevant cross-sectional area on the power side may be used, but with the derating curve for the cross-sectional area given as combined to that on the power side.



contacts side (front view)



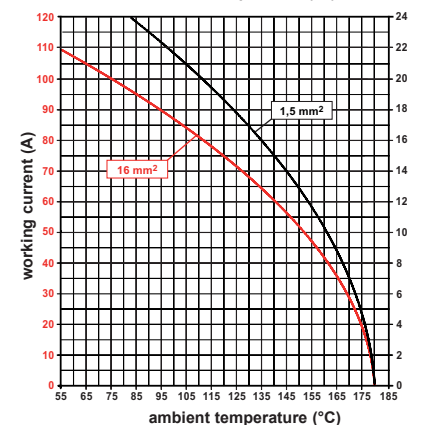
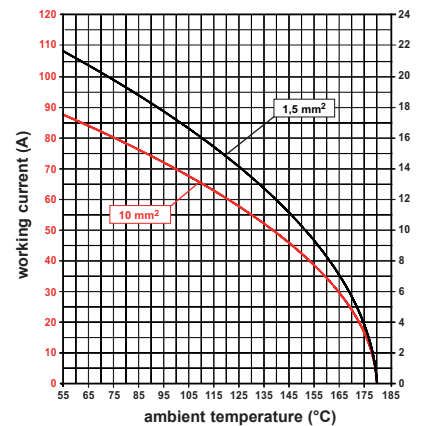
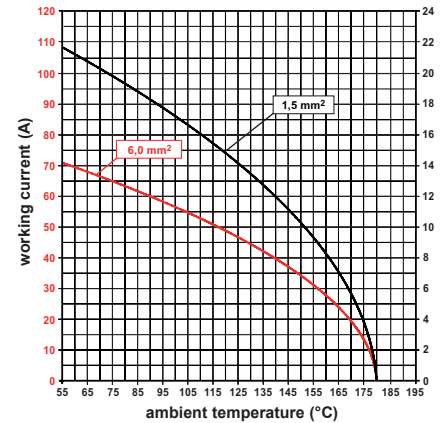
80A contacts

- without plate for section conductors:
4 - 16 mm² - AWG 12 - 6
- conductors stripping length: 14 mm
- terminal screw torque: 2,5 Nm (22.1 lb.in),
for more information see page 20 and 21

16A contacts

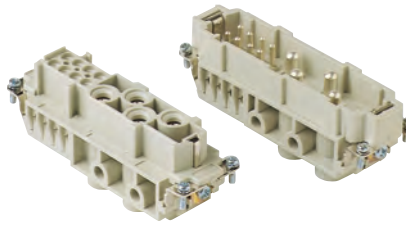
- without plate for section conductors:
0,25 - 2,5 mm² - AWG 24 - 14
- conductors stripping length: 7 mm
- terminal screw torque: 0,5 Nm (4.4 lb.in),
for more information see page 20 and 21

CX..RY 4/2 poles connector inserts
Maximum current load derating diagram



enclosures: size "104.27"	page:
CX 4/8:	
C-TYPE IP65 or IP66/IP69	412 - 423
C7 IP67, two levers	441 - 442
V-TYPE IP65 or IP66/IP69, single lever	459 - 463
BIG hoods	472 - 473
T-TYPE IP65 insulating	486 - 487
T-TYPE / W IP66/IP69 insulating	492
HYGIENIC T-TYPE / H IP66/IP69	504
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	509
W-TYPE for aggressive environments	524
E-Xtreme® corrosion proof	536 - 537, 545, 556 - 557
EMC	581
Central lever	612 - 614
LS-TYPE	624 - 625
IP68	644 - 647
panel supports: COB	652 - 653
CX 4/8 RY: For 180 °C	589

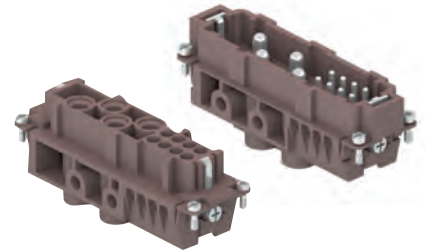
inserts,
screw terminal connection



Q SILVER PLATED CONTACTS

part No.

inserts,
screw terminal connection



180 °C

Q SILVER PLATED CONTACTS

part No.

description

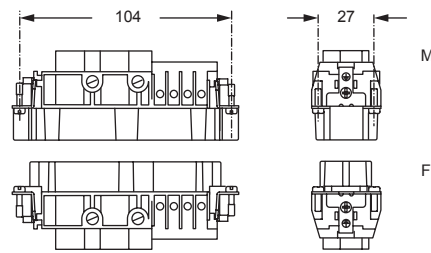
female inserts with female contacts
male inserts with male contacts
use in temperatures up to 180 °C
female inserts with female contacts
male inserts with male contacts

CXF 4/8
CXM 4/8

CXF 4/8 RY
CXM 4/8 RY

- characteristics according to EN 61984:
80A 400V 6kV 3
80A 400/690V 6kV 2
16A 230/400V 4kV 3
16A 400V 4kV 2
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 G Ω
- ambient temperature limit: -40 °C ... +125 °C (CX)
- ambient temperature limit: -40 °C ... +180 °C (CX...RY)
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance:
 $\leq 0,3$ m Ω (4 poles)
 ≤ 1 m Ω (8 poles)
- for max. current load see the connector inserts derating diagrams on the side; for more information see page 28

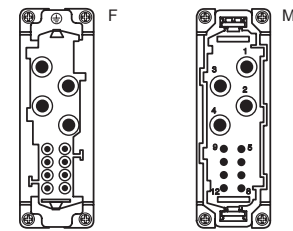
CX - CX..RY



80A contacts

- without plate for section conductors:
4 - 16 mm² - AWG 12 - 6
- conductors stripping length: 14 mm
- terminal screw torque: 2,5 Nm (22.1 lb.in), for more information see page 20 and 21

contacts side (front view)



16A contacts

- with plate for section conductors:
0,75 - 2,5 mm² - AWG 18 - 14
- conductors stripping length: 7 mm
- terminal screw torque: 0,5 Nm (4.4 lb.in), for more information see page 20 and 21

The derating curves for the connector's **power** (red) and **signal** (black) portions provided in the diagram are valid for the following combinations of cross-sectional area on the power side and on the signal side:

- power 4 mm² with signal 1 mm²;
- power 6 mm² with signal 1 mm²;
- power 10 mm² or 6 mm² with signal 1,5 mm²;
- power 16 mm² with signal 2,5 mm²;

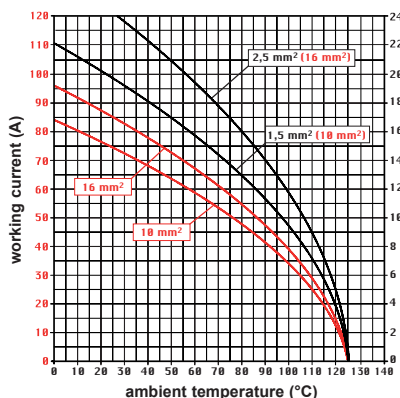
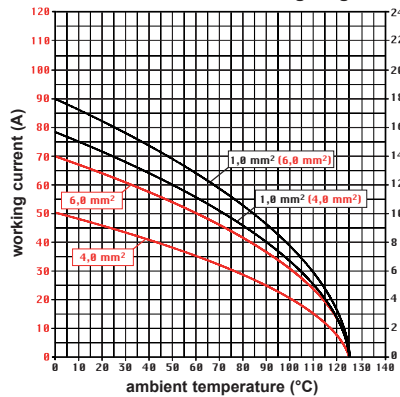
NOTE 1

Any cross-sectional area on the signal side higher than that combined to the relevant cross-sectional area on the power side may be used, but with the derating curve for the cross-sectional area given as combined to that on the power side.

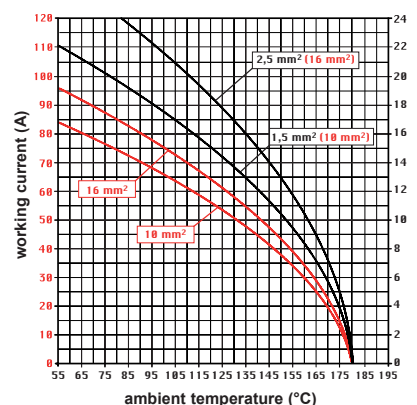
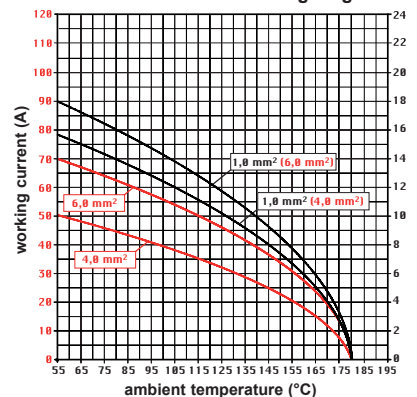
NOTE 2

Any cross-sectional area on the signal side lower than that combined to the relevant cross-sectional area on the power side (e.g. 1 mm² signal with 16 mm² power) may be used at the current indicated for the signal cross-sectional area belonging to the closest lower cross-sectional area on the power side (i.e. the 1 mm² curve combined to the 6 mm² power section).

CX 4/8 poles connector inserts
Maximum current load derating diagrams



CX..RY 4/8 poles connector inserts
Maximum current load derating diagram



CX 6/6 inserts 100A/16A version

The CX series of combined “power /auxiliaries” connector inserts has been enhanced with a **new insert, CX 6/6 suitable for currents up to 100A** in the power side and 16A on the auxiliaries side, for crimp contacts series CG (100A max) and series CC (16A max) several benefits over conventional screw or axial screw contacts:

- more **resistant to mechanical stresses** such as vibrations, shock and cable loads;
- more **corrosion resistant** (gas tight);
- **quicker to connect** and ensuring more **consistent results** (regardless of the operators “force”);
- the connector is **electrically more efficient** (reduced voltage drop).

This innovative insert design, by following the same concepts of the MIXO 100A CX..G model, **patented by ILME**, ensures a quicker fitting and removal of crimped contacts.

The **provided locking keys** firmly fasten the contact holder.

The power contacts may be removed **without any special tool**, using a simple screwdriver (e.g.: 0,5 x 3 mm, 0,5 x 3,5 mm, 0,6 x 4 mm and 0,8 x 4 mm flat blade).

The removal of auxiliary contacts series CC requires the CQES extraction tool. See figure below.

The crimping operation may be carried out quickly and efficiently with the **hand operated hydraulic pliers**, which is pre-fitted with the suitable locator. Suitable crimp dies are available on request.

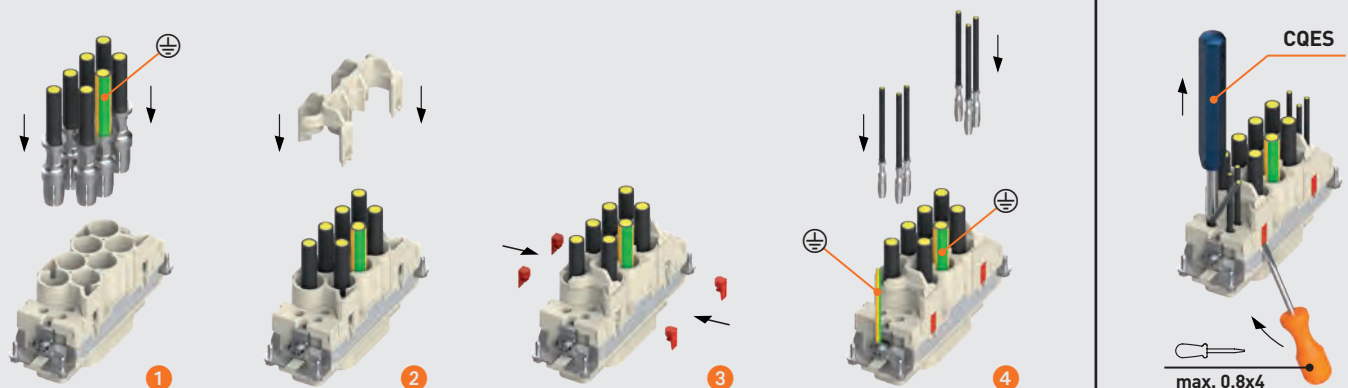
Inserts series		CX 6/6	
No. of poles	main contact	6 + ⊕ (100A) **	
	auxiliary contacts	6 (16A)	
rated current ¹⁾		100A	16A
EN 61984 pollution degree 3	rated voltage	690V	400V
	rated impulse withstand voltage	8kV	6kV
	pollution degree	3	3
contact resistance		≤ 0,3 mΩ (100A) ≤ 1 mΩ (16A)	
insulation resistance		≥ 10 GΩ	
ambient temperature limit (°C)	min	-40 °C	
	max	+125 °C	
degree of protection	with enclosures (according to version)	IP65, IP66/IP69, IP66/IP67/IP69, IP66/IP68/IP69	
	without enclosures (in mated condition)	IP20 (IPXXB)	
conductor connections *		crimp	
conductor cross-section (CG contact series)	mm ²	16, 25, 35	
	AWG	6 - 5, 4 - 3, 2	
conductor cross-section (CC contact series)	mm ²	0,14 4,0	
	AWG	26 - 12	
CG/CC stripping length	mm	15 / 7,5	
mechanical endurance (mating cycles)		≥ 500	

¹⁾ Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.

* max external conductor Ø = 11,5 mm

** the power PE contact is not included and must be the same size as the power contacts used (for a total n° at contacts = 7)

CX 6/6 Assembling instructions



CX 6 poles + ⊕ (100A - 690V) + 6 poles (16A - 400V) + ⊖

enclosures: size "104.27"	page:
C-TYPE IP65 or IP66/IP69	412 - 423
C7 IP67, two levers	441 - 442
V-TYPE IP65 or IP66/IP69, single lever	459 - 463
BIG hoods	472 - 473
T-TYPE IP65 insulating	486 - 487
T-TYPE / W IP66/IP69 insulating	492
HYGIENIC T-TYPE / H IP66/IP69	504
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	509
W-TYPE for aggressive environments	524
E-Xtreme® corrosion proof	536 - 537, 545, 556 - 557
EMC	581
Central lever	612 - 614
LS-TYPE	624 - 625
IP68	644 - 647

panel supports: COB	page: 652 - 653
------------------------	--------------------

enclosures:
bulkhead mounting housings, high construction housings
or high construction hoods

inserts, crimp connections



100A and 16A crimp contacts silver and gold plated



description	part No.	part No.
-------------	----------	----------

without contacts (to be ordered separately)
female inserts for female contacts **CXF 6/6**
male inserts for male contacts **CXM 6/6**

100A female crimp contacts
8 - 10 mm² AWG 8 - 7
16 mm² AWG 6 - 5
25 mm² AWG 4 - 3
35 mm² AWG 2

CGFA 10
CGFA 16
CGFA 25
CGFA 35

silver plated

+ for basic or high thickness gold plating, please refer to page 675

100A male crimp contacts
8 - 10 mm² AWG 8 - 7
16 mm² AWG 6 - 5
25 mm² AWG 4 - 3
35 mm² AWG 2

CGMA 10
CGMA 16
CGMA 25
CGMA 35

16A female contacts
0,14-0,37 mm² AWG 26-22 one groove
0,5 mm² AWG 20 with no grooves
0,75 mm² AWG 18 one groove (back side)
1 mm² AWG 18 one groove
1,5 mm² AWG 16 two grooves
2,5 mm² AWG 14 three grooves
3 mm² AWG 12 one wide groove
4 mm² AWG 12 with no grooves

CCFA 0.3
CCFA 0.5
CCFA 0.7
CCFA 1.0
CCFA 1.5
CCFA 2.5
CCFA 3.0
CCFA 4.0

CCFD 0.3
CCFD 0.5
CCFD 0.7
CCFD 1.0
CCFD 1.5
CCFD 2.5
CCFD 3.0
CCFD 4.0

gold plated

16A male contacts
0,14-0,37 mm² AWG 26-22 one groove
0,5 mm² AWG 20 with no grooves
0,75 mm² AWG 18 one groove (back side)
1 mm² AWG 18 one groove
1,5 mm² AWG 16 two grooves
2,5 mm² AWG 14 three grooves
3 mm² AWG 12 one wide groove
4 mm² AWG 12 with no grooves

CCMA 0.3
CCMA 0.5
CCMA 0.7
CCMA 1.0
CCMA 1.5
CCMA 2.5
CCMA 3.0
CCMA 4.0

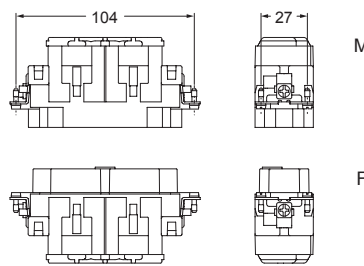
CCMD 0.3
CCMD 0.5
CCMD 0.7
CCMD 1.0
CCMD 1.5
CCMD 2.5
CCMD 3.0
CCMD 4.0

- characteristics according to EN 61984:

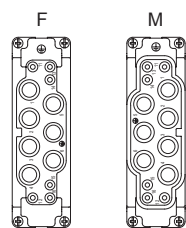
100A 690V 8kV 3
16A 400V 6kV 3

- us (UL for USA and Canada),

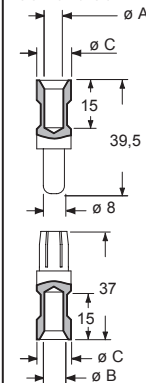
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ (100A), ≤ 1 mΩ (16A)
- for max. current load see the connector inserts derating diagram below; for more information see page 28



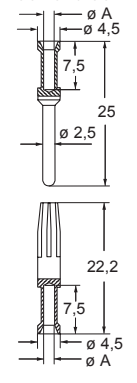
contacts side (front view)



CGF and CGM



CCF and CCM



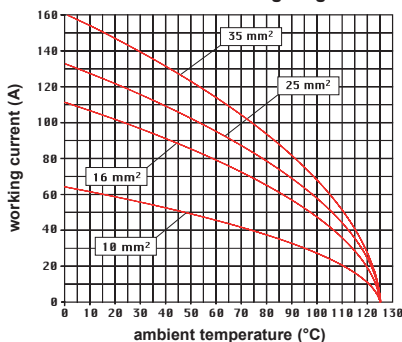
CGF and CGM contacts

conductor section (mm ²)	conductor slot ø A (mm)	ø B (mm)	ø C (mm)	conductor stripping length (mm)
8-10	4,3	4,3	13	15
16	5,5	5,5	13	15
25	7,0	7,0	13	15
35	7,9	8,2	12,5	15

CCF and CCM contacts

conductor section (mm ²)	conductor slot ø A (mm)	conductors stripping length (mm)
0,14-0,37	0,9	7,5
0,5	1,1	7,5
0,75	1,3	7,5
1,0	1,45	7,5
1,5	1,8	7,5
2,5	2,2	7,5
3	2,55	7,5
4	2,85	7,5

CX 6/6 power poles connector inserts
Maximum current load derating diagram



- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 100A contacts CGF, CGM series and 16A contacts CCF, CCM series) on pages 708 - 741