

CQE 10 poles + ⊕ 16A - 500V

enclosures:
size "44.27" page:

C-TYPE IP65/IP66	387 - 392
C7 IP67, single lever	436 - 437
V-TYPE IP65/IP66, single lever	444 - 447
BIG hoods	466 - 467
T-TYPE IP65 insulating	480 - 481
T-TYPE / W IP66/IP69 insulating	489
HYGIENIC T-TYPE / H IP66/IP69	501
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	506
W-TYPE for aggressive environments	521
E-Xtreme® corrosion proof	530 - 531, 542, 550 - 551
EMC	578
Central lever	603 - 605
LS-TYPE	618 - 619
IP68	632 - 635

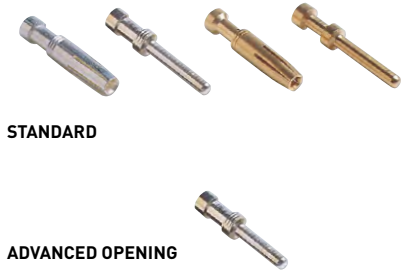
panel supports: page:
COB 652 - 653

- for applications requiring higher voltages, please see the special voltage application section on page 167

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

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

without contacts (to be ordered separately)
female inserts for female contacts
male inserts for male contacts

CQEF 10
CQEM 10

16A female contacts

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

16A male contacts

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

16A male crimp contacts for advanced opening

0,5 mm ²	AWG 20	with no grooves
0,75 mm ²	AWG 18	one groove (back side)
1 mm ²	AWG 18	one groove
1,5 mm ²	AWG 16	two grooves
2,5 mm ²	AWG 14	three 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

silver plated

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*

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

CC 0.5 AN
CC 0.7 AN
CC 1.0 AN
CC 1.5 AN
CC 2.5 AN

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

- characteristics according to EN 61984:

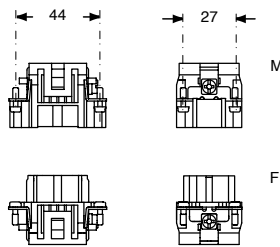
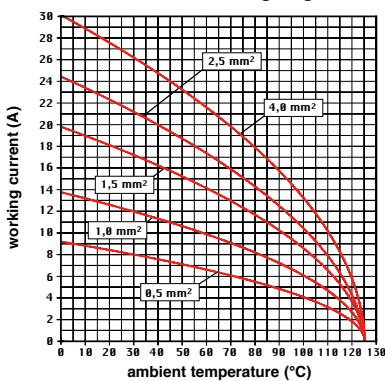
16A 500V 6kV 3
16A 830V 8kV 2

- cULus (UL for USA and Canada),

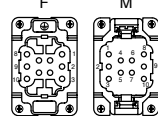
certified

- 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CQE 10 poles connector inserts
Maximum current load derating diagram



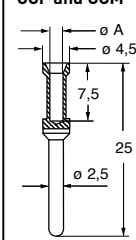
contacts side (front view)



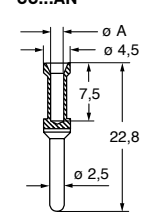
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN



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

CCF, CCM and CC...AN 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

CQE 18 poles + ⊕ 16A - 500V

enclosures:
size "57.27" page:

C-TYPE IP65/IP66	393 - 401
C7 IP67, two levers	438
V-TYPE IP65/IP66, 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: page:
COB 652 - 653

- for applications requiring higher voltages, please see the special voltage application section on page 167

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

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

without contacts (to be ordered separately)
female inserts for female contacts
male inserts for male contacts

CQEF 18
CQEM 18

16A female contacts

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

16A male contacts

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

16A male crimp contacts for advanced opening

0,5 mm ²	AWG 20	with no grooves
0,75 mm ²	AWG 18	one groove (back side)
1 mm ²	AWG 18	one groove
1,5 mm ²	AWG 16	two grooves
2,5 mm ²	AWG 14	three grooves

CCFA 0.3	silver plated	CCFD 0.3	gold plated+
CCFA 0.5		CCFD 0.5	
CCFA 0.7		CCFD 0.7	
CCFA 1.0		CCFD 1.0	
CCFA 1.5		CCFD 1.5	
CCFA 2.5		CCFD 2.5	
CCFA 3.0		CCFD 3.0	
CCFA 4.0		CCFD 4.0	

CCMA 0.3	silver plated	CCMD 0.3	gold plated+
CCMA 0.5		CCMD 0.5	
CCMA 0.7		CCMD 0.7	
CCMA 1.0		CCMD 1.0	
CCMA 1.5		CCMD 1.5	
CCMA 2.5		CCMD 2.5	
CCMA 3.0		CCMD 3.0	
CCMA 4.0		CCMD 4.0	

CC 0.5 AN	silver plated
CC 0.7 AN	
CC 1.0 AN	
CC 1.5 AN	
CC 2.5 AN	

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

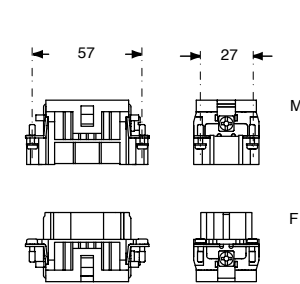
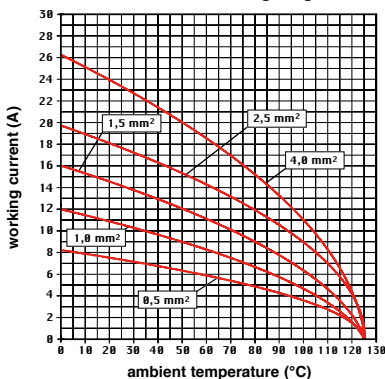
- characteristics according to EN 61984:

16A 500V 6kV 3
16A 830V 8kV 2

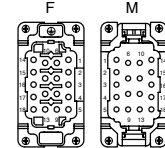
- (UL for USA and Canada), certified

- 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CQE 18 poles connector inserts
Maximum current load derating diagram



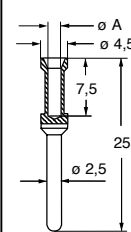
contacts side (front view)



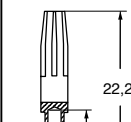
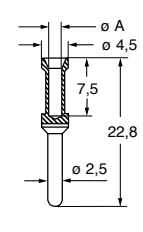
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN



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

CCF, CCM and CC...AN 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

CQE 32 poles + ⊕ 16A - 500V

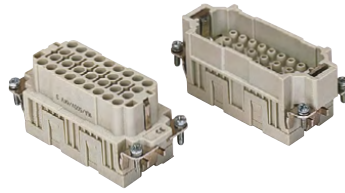
enclosures:
size "77.27" page:

C-TYPE IP65/IP66	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65/IP66, 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

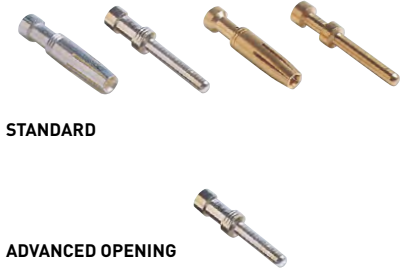
panel supports: page:
COB 652 - 653

- for applications requiring higher voltages, please see the special voltage application section on page 167

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

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

without contacts (to be ordered separately)
female inserts for female contacts
male inserts for male contacts

CQEF 32
CQEM 32

16A female contacts

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

16A male contacts

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

16A male crimp contacts for advanced opening

0,5 mm ²	AWG 20	with no grooves
0,75 mm ²	AWG 18	one groove (back side)
1 mm ²	AWG 18	one groove
1,5 mm ²	AWG 16	two grooves
2,5 mm ²	AWG 14	three 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

silver plated

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*

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

CC 0.5 AN
CC 0.7 AN
CC 1.0 AN
CC 1.5 AN
CC 2.5 AN

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

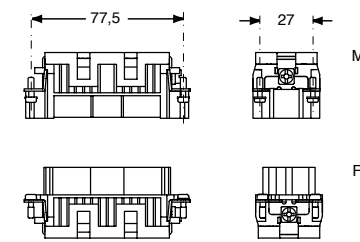
- characteristics according to EN 61984:

16A 500V 6kV 3
16A 830V 8kV 2

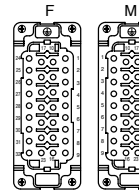
- **UL** (UL for USA and Canada), **SIR**, **CQC**, **DNV-GL**

BUREAU VERITAS **ERC** 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28



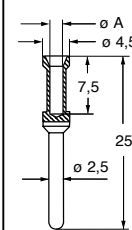
contacts side (front view)



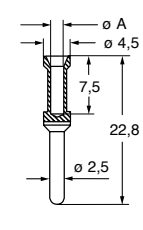
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN

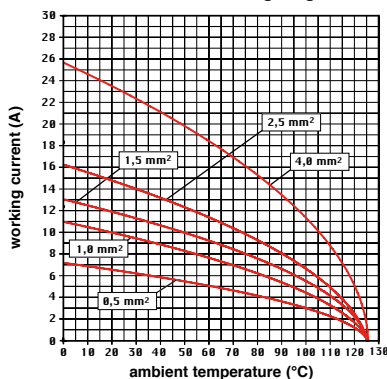


- it is recommended to crimp the contacts with crimping tools homologated by **ILME** (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series on pages 708 - 741)

CCF, CCM and CC...AN 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

CQE 32 poles connector inserts Maximum current load derating diagram



CQE 46 poles + ⊕ 16A - 500V

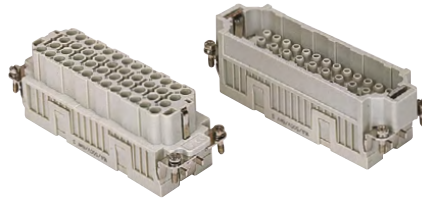
enclosures:
size "104.27" page:

C-TYPE IP65/IP66	412 - 423
C7 IP67, two levers	441 - 442
V-TYPE IP65/IP66, 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

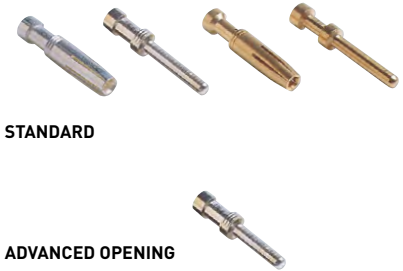
panel supports: page:
COB 652 - 653

- for applications requiring higher voltages, please see the special voltage application section on page 167

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

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

without contacts (to be ordered separately)
female inserts for female contacts **CQEF 46**
male inserts for male contacts **CQEM 46**

16A female contacts

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

16A male contacts

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

16A male crimp contacts for advanced opening

0,5 mm ²	AWG 20	with no grooves
0,75 mm ²	AWG 18	one groove (back side)
1 mm ²	AWG 18	one groove
1,5 mm ²	AWG 16	two grooves
2,5 mm ²	AWG 14	three grooves

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

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

CC 0.5 AN
CC 0.7 AN
CC 1.0 AN
CC 1.5 AN
CC 2.5 AN

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

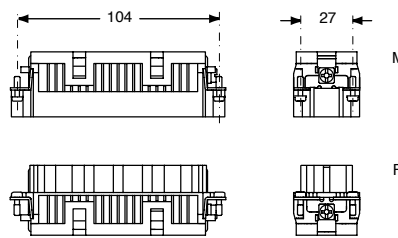
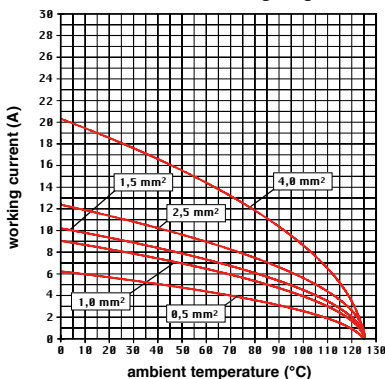
- characteristics according to EN 61984:

16A 500V 6kV 3
16A 830V 8kV 2

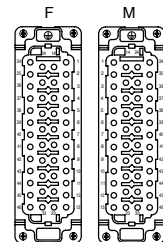
- (UL for USA and Canada), certified

- 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CQE 46 poles connector inserts
Maximum current load derating diagram



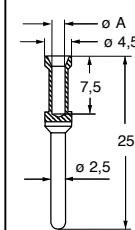
contacts side (front view)



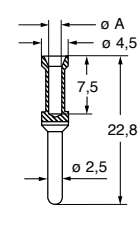
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN



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

CCF, CCM and CC...AN contacts

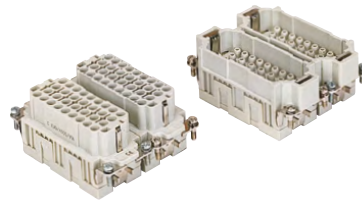
conductor section mm ²	conductor slot ø A (mm)	conductors stripping length (mm)
0,14-0,37	0,9	7,5
0,5	1,1	7,5
0,75	1,3	7,5
1,0	1,45	7,5
1,5	1,8	7,5
2,5	2,2	7,5
3	2,55	7,5
4	2,85	7,5

CQE 64 poles + ⊕ 16A - 500V

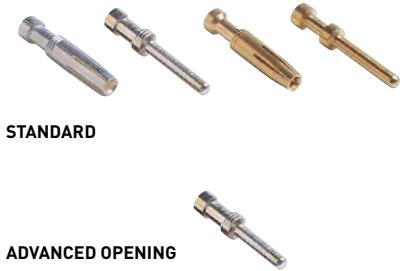
enclosures:
size "77.62" page:

C-TYPE IP65/IP66 424 - 429
W-TYPE for aggressive environments 525
E-Xtreme® corrosion proof 546

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

- for applications requiring higher voltages, please see the special voltage application section on page 167

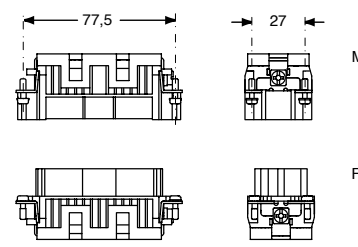
description	part No.	part No.	part No.
without contacts (to be ordered separately)			
female inserts for female contacts, No. (1-32) and (33-64)	CQEF 32	CQEF 32 N	
male inserts for male contacts, No. (1-32) and (33-64)	CQEM 32	CQEM 32 N	
16A female contacts			
0,14-0,37 mm ² AWG 26-22 one groove			CCFA 0.3
0,5 mm ² AWG 20 with no grooves			CCFA 0.5
0,75 mm ² AWG 18 one groove (back side)			CCFA 0.7
1 mm ² AWG 18 one groove			CCFA 1.0
1,5 mm ² AWG 16 two grooves			CCFA 1.5
2,5 mm ² AWG 14 three grooves			CCFA 2.5
3 mm ² AWG 12 one wide groove			CCFA 3.0
4 mm ² AWG 12 with no grooves			CCFA 4.0
16A male contacts			
0,14-0,37 mm ² AWG 26-22 one groove			CCMA 0.3
0,5 mm ² AWG 20 with no grooves			CCMA 0.5
0,75 mm ² AWG 18 one groove (back side)			CCMA 0.7
1 mm ² AWG 18 one groove			CCMA 1.0
1,5 mm ² AWG 16 two grooves			CCMA 1.5
2,5 mm ² AWG 14 three grooves			CCMA 2.5
3 mm ² AWG 12 one wide groove			CCMA 3.0
4 mm ² AWG 12 with no grooves			CCMA 4.0
16A 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

silver plated

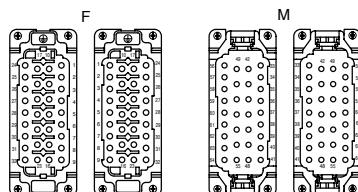
gold plated*

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

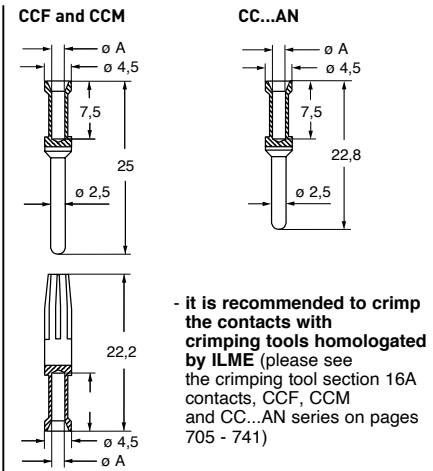
- characteristics according to EN 61984:
16A 500V 6kV 3
16A 830V 8kV 2
- us (UL for USA and Canada),
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28



contacts side (front view)

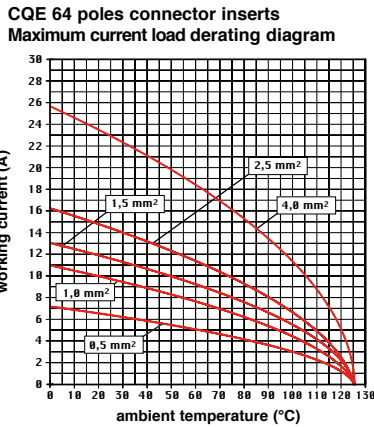


CR CPQ coding pins (page 689)



- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series on pages 705 - 741)

CCF, CCM and CC...AN 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



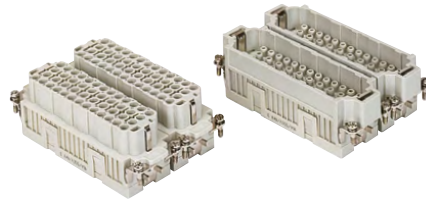
CQE 92 poles + ⊕ 16A - 500V

enclosures:
size "104.62"

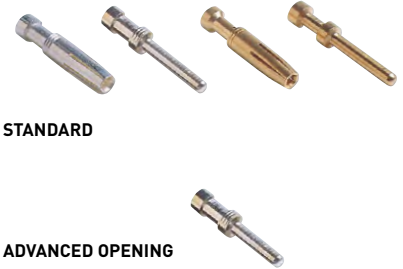
page:

C-TYPE IP65/IP66	430
W-TYPE for aggressive environments	526
E-Xtreme® corrosion proof	547

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

- for applications requiring higher voltages, please see the special voltage application section on page 167

description	part No.	part No.	part No.
without contacts (to be ordered separately)			
female inserts for female contacts, No. (1-46) and (47-92)	CQEF 46	CQEF 46 N	
male inserts for male contacts, No. (1-46) and (47-92)	CQEM 46	CQEM 46 N	
16A female contacts			
0,14-0,37 mm ² AWG 26-22 one groove			CCFA 0.3
0,5 mm ² AWG 20 with no grooves			CCFA 0.5
0,75 mm ² AWG 18 one groove (back side)			CCFA 0.7
1 mm ² AWG 18 one groove			CCFA 1.0
1,5 mm ² AWG 16 two grooves			CCFA 1.5
2,5 mm ² AWG 14 three grooves			CCFA 2.5
3 mm ² AWG 12 one wide groove			CCFA 3.0
4 mm ² AWG 12 with no grooves			CCFA 4.0
16A male contacts			
0,14-0,37 mm ² AWG 26-22 one groove			CCMA 0.3
0,5 mm ² AWG 20 with no grooves			CCMA 0.5
0,75 mm ² AWG 18 one groove (back side)			CCMA 0.7
1 mm ² AWG 18 one groove			CCMA 1.0
1,5 mm ² AWG 16 two grooves			CCMA 1.5
2,5 mm ² AWG 14 three grooves			CCMA 2.5
3 mm ² AWG 12 one wide groove			CCMA 3.0
4 mm ² AWG 12 with no grooves			CCMA 4.0
16A 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
			CC 3.0 AN
			CC 4.0 AN

silver plated

gold plated+

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

- characteristics according to EN 61984:

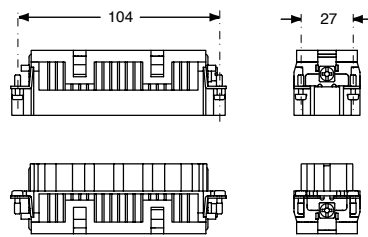
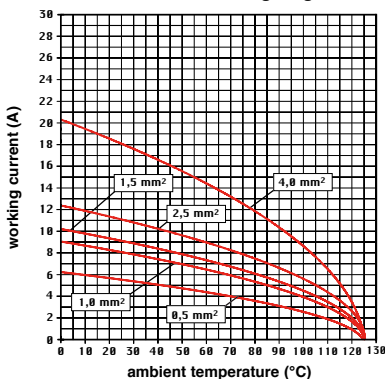
16A 500V 6kV 3
16A 830V 8kV 2

- cULus (UL for USA and Canada), VDE, CQC, DNV-GL

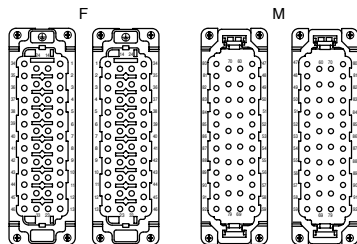
BUREAU VERITAS ERI certified

- 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CQE 92 poles connector inserts
Maximum current load derating diagram



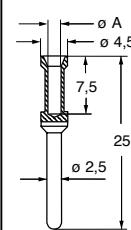
contacts side (front view)



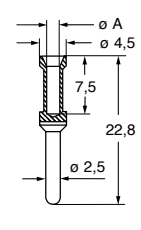
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN



- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series on pages 705 - 741)

CCF, CCM and CC...AN 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

CQEE series

TECHNICAL FEATURES

Connector inserts series **CQEE** are the logical extension of the existing series CQE for removable crimp contacts series CC (16A max, available both in gold plated and in silver plated version) that include the CC...AN pin contacts with anticipated opening (first-to-break) and delayed closing (last-to-make).

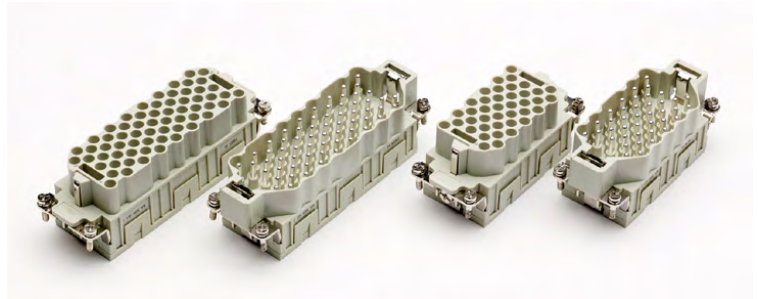
Compared with the connector inserts of the same size of series CQE, connector inserts series **CQEE** provide a sensibly higher number of contacts: 64P+⊕ instead of 46P+⊕ for size 104.27 (+39%), 40P+⊕ instead of 32P+⊕ for size 77.27 (+25%).

With the same number of circuits, it is conversely possible to reduce the size of the connector inserts and of the related hood and housing, thus reducing the overall cost.

Connector inserts series **CQEE** may replace in the same size (77.27, 104.27) and with the same contact density (40P+⊕ and 64P+⊕) the corresponding inserts of series CD for removable crimp contacts series CD (10A max).

This may be particularly useful when, as a function of the intended use, it is required:

- to use the connector at a higher rated voltage: CQEE covers use at 500V / 6kV / 3 where CD stops at 250V / 4kV / 3;
- to assign a larger current-carrying capacity, both due to the lower contact resistance (1 mΩ instead of 3 mΩ) and the larger wire size available for series CC compared with series CD contacts;
- to use wires with the larger cross-sectional area of 4 mm² / AWG 12, in order to contain the percent voltage drop [%] in circuits fed with extra-low voltage and with comparatively high currents, or in circuits of considerable length;
- to use crimp contacts with inherently higher mechanical robustness;
- to use anticipated pin contacts CC...AN (e.g. for the remote signal ling of the "OPEN" or "CLOSED" status of the connector).



CQEE series

TECHNICAL FEATURES

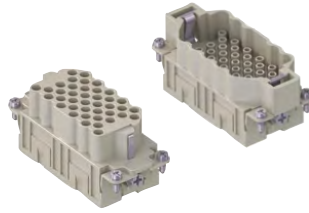
Inserts series		CQEE
No. of poles	main contacts + ⊕	40 + ⊕, 64 + ⊕
rated current ¹⁾		16A
EN 61984 pollution degree 3	rated voltage	500V
	rated impulse voltage	6kV
	pollution degree	3
EN 61984 pollution degree 2	rated voltage	830V
	rated impulse voltage	6kV
	pollution degree	2
UL/CSA certification	rated voltage AC/DC	600V
contact resistance		≤ 1 mΩ
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 (according to type and model)
	without enclosures (in mated condition)	IP20 (IPXXB)
conductor connections		crimp (only ⊕: screw)
conductor cross-section (CC contact series)	mm ²	0,14 4,0
	AWG	26 - 12
stripping length	mm	7,5
mechanical endurance (mating cycles)		≥ 500

¹⁾ Please check the inserts derating diagrams to establish the actual maximum operating current according to the ambient temperature, the conductor cross-sectional area, the polarity of the connector, and any external constraint that may derive e.g. by the continuous operating temperature sustained by the chosen conductor sheathing or by end-product safety standards fixing max allowed temperature rise on terminals (e.g. 30 K, 45 K or 50 K)

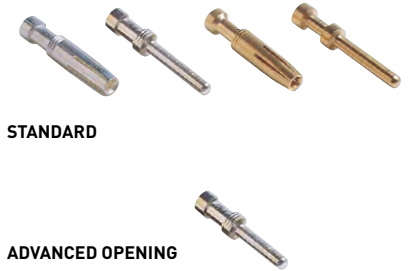
CQEE 40 poles + \oplus 16A - 500V

enclosures: size "77.27"	page:
C-TYPE IP65/IP66	402 - 411
C7 IP67, two levers	439 - 440
V-TYPE IP65/IP66, 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:	page:
COB	652 - 653

inserts, crimp connections



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



STANDARD

ADVANCED OPENING

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

without contacts (to be ordered separately)
female inserts for female contacts
male inserts for male contacts

CQEEF 40
CQEEM 40

16A female contacts

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

silver plated

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

16A male crimp contacts for advanced opening

0,5 mm ²	AWG 20	with no grooves
0,75 mm ²	AWG 18	one groove (back side)
1 mm ²	AWG 18	one groove
1,5 mm ²	AWG 16	two grooves
2,5 mm ²	AWG 14	three grooves

CC 0.5 AN
CC 0.7 AN
CC 1.0 AN
CC 1.5 AN
CC 2.5 AN

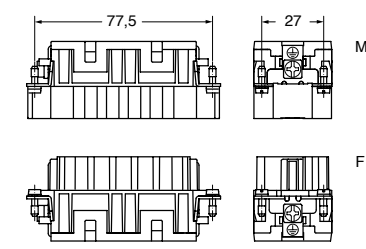
* for basic or high thickness gold plating, please refer to page 675

- characteristics according to EN 61984:

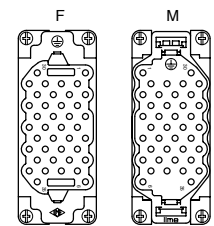
16A 500V 6kV 3

- cULus (UL for USA and Canada), certified

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



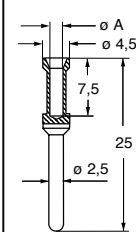
contacts side (front view)



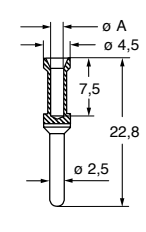
CR CPQ coding pins
(page 689)



CCF and CCM



CC...AN

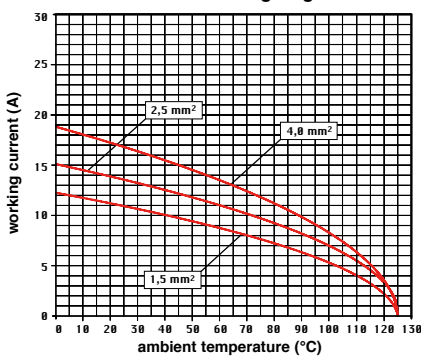


- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series on pages 708 - 741)

CCF, CCM and CC...AN contacts

conductor section mm ²	conductor slot ϕ 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

CQEE 40 poles connector inserts
Maximum current load derating diagram

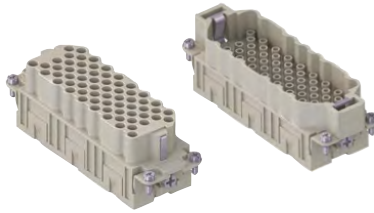


CQEE

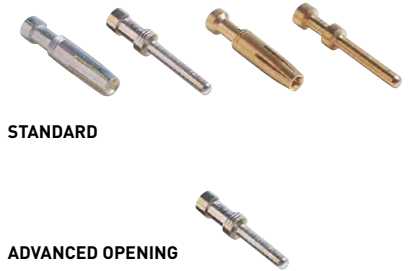
CQEE 64 poles + ⊕ 16A - 500V

enclosures: size "104.27"	page:
C-TYPE IP65/IP66	412 - 423
C7 IP67, two levers	441 - 442
V-TYPE IP65/IP66, 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

inserts, crimp connections



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



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

without contacts (to be ordered separately)
female inserts for female contacts **CQEEF 64**
male inserts for male contacts **CQEEM 64**

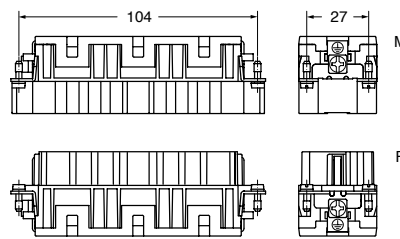
16A female contacts			
0,14-0,37 mm ²	AWG 26-22	one groove	CCFA 0.3
0,5 mm ²	AWG 20	with no grooves	CCFA 0.5
0,75 mm ²	AWG 18	one groove (back side)	CCFA 0.7
1 mm ²	AWG 18	one groove	CCFA 1.0
1,5 mm ²	AWG 16	two grooves	CCFA 1.5
2,5 mm ²	AWG 14	three grooves	CCFA 2.5
3 mm ²	AWG 12	one wide groove	CCFA 3.0
4 mm ²	AWG 12	with no grooves	CCFA 4.0
16A male contacts			
0,14-0,37 mm ²	AWG 26-22	one groove	CCMA 0.3
0,5 mm ²	AWG 20	with no grooves	CCMA 0.5
0,75 mm ²	AWG 18	one groove (back side)	CCMA 0.7
1 mm ²	AWG 18	one groove	CCMA 1.0
1,5 mm ²	AWG 16	two grooves	CCMA 1.5
2,5 mm ²	AWG 14	three grooves	CCMA 2.5
3 mm ²	AWG 12	one wide groove	CCMA 3.0
4 mm ²	AWG 12	with no grooves	CCMA 4.0
16A 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

silver plated

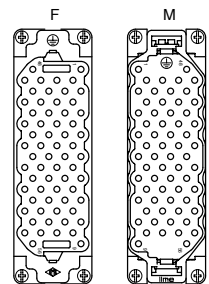
gold plated+

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

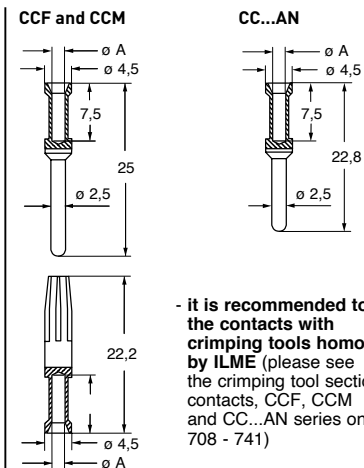
- characteristics according to EN 61984: **16A 500V 6kV 3**
- cULus (UL for USA and Canada), **ERIC certified**
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28



contacts side (front view)



CR CPQ coding pins (page 689)



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

CCF, CCM and CC..AN 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

CQEE 64 poles connector inserts
Maximum current load derating diagram

