

Marine & Offshore

Certificate number: 53681/A0 BV

File number: AP1
Product code: 2556D

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

INDUSTRIA LOMBARDA MATERIALE ELETTRICO I.L.M.E. SpA

Milano (MI) - ITALY

for the type of product

CONNECTORS

CK/CKS/CKSH/JK/JKS/JKSH; CDA/JDA/CDC/CSAH/JSAH; CD/RD; CDD/RDD; CDS/CDSH/CDSH ... NC/JDS/JDSH; CNE/JNE/CME/CCE/RCE/CMCE/CQE/CQEE/RQEE/CSE/JSE/CSS/CSH/JSH/CMSH; CP; CX; MIXO; CTSE,CT/CTS; CJ/CJK/CLK/CX 1/2 BD; CQ; Hoods and Housings.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 27 Aug 2023

For Bureau Veritas Marine & Offshore, At BV VENEZIA, on 27 Aug 2018, Sandro BRUSEGAN





This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Connectors for use in signal, control and power systems with locking device.

1.1 - Type designation code:

S.No	Туре	Temperature	Humidity	Vibration
1	CK / CKS / CKSH / JK / JKS / JKSH	55°C	100%	4,0g
2	CDA / JDA / CDC / CSAH / JSAH	55°C	100%	4,0g
3	CD / RD	55°C	100%	4,0g
4	CDD / RDD	55°C	100%	4,0g
5	CDS / CDSH / CDSH NC / JDS / JDSH	55°C	100%	4,0g
6	CNE / JNE / CME / CCE / RCE / CMCE / CQE / CQEE / RQEE /	55°C	100%	4,0g
	CSE / JSE / CSS / CSH / JSH / CMSH			
7	СР	55°C	100%	4,0g
8	CX	55°C	100%	4,0g
9	MIXO	55°C	100%	4,0g
10	CTSE, CT / CTS	55°C	100%	4,0g
11	CJ / CJK / CLK / CX 1/2 BD	55°C	100%	4,0g
12	CQ	55°C	100%	4,0g
13	Hoods and Housings	55°C	100%	4,0g

1.2 - Technical Data/Range of Application:

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S.No	Type			
1	Multipole connector series CK / CK RY / CKS / CKS RY / CKSH / JK / JKS / JKSH:			
	CKM/F 03, CKM/F 03 N, CKM/F 04, CKM/F 04 N : I = 10A, U = 230/400V, poles = 3+PE, 4+PE, connection = screw 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK).			
	CKM/F 03 RY, CKM/F 04 RY (high temperatures) : I = 10A, U = 230/400V, poles = 3+PE, 4+PE, connection = screw 2,5 mm2, housing = die cast aluminium IP44.			
	CKSM/F 03, CKSM/F 03 N, CKSM/F 04, CKS/M 04 N : I = 10A, U = 400V, poles = 3+PE, 4+PE, connection = spring 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK).			
	CKSM/F 03 RY, CKSM/F 04 RY (high temperatures) : I = 10A, U = 400V, poles = 3+PE, 4+PE, connection = spring 2,5 mm2, housing = die cast aluminium, IP66.			
	CKSHM/F 03, CKSHM/F 04 : I = 10A, U = 400V, poles = 3+PE, 4+PE, connection = spring with actuator 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK).			
	JKM/F 03, JKM/F 03 N, JKM/F 04, JKM/F 04 N : I = 10A, U = 230/400V, poles = 3+PE, 4+PE, connection = screw 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK).			
	JKSM/F 03, JKSM/F 03 N, JKSM/F 04, JKS/M 04 N: I = 10A, U = 400V, poles = 3+PE, 4+PE, connection = spring 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK), JKSHM/F 03, JKSHM/F 04: I = 10A, U = 400V, poles = 3+PE, 4+PE, connection = spring with actuator 2,5 mm2, housing = die cast aluminium or zinc, or plastic, IP44 (IP65/IP67) or IP66/IP68 (series CGK/MGK).			
2	Multipole connector series CDA (screw) / CDC (crimp) / CSAH (spring) / JSAH (spring, tin-plated contacts):			
	CDAM/F 10, 10 X, 16, 16 X, 16 N, 16 XN : I = 16A, U = 250V, poles = 10, 16, 32 all types +PE, connection = screw 2,5 mm2, housing = die cast aluminium, IP66.			
	JDAM/F 10, 10 X, 16, 16 X, 16 N, 16 XN : I = 16A, U = 250V, poles = 10, 16, 32 all types +PE, connection = screw 2,5 mm2, housing = die cast aluminium, IP66.			
	CDCM/F 10, 16, 16 N : I = 16A, U = 250V, poles = 10, 16, 32 all types +PE, connection = crimp 4 mm2, housing = die			

cast aluminium, IP66.

CSAHM/F 10, 16, 16 N, : I = 16A, U = 250V, poles = 10, 16, 32, all types +PE, connection = spring with actuator 2,5 mm2, housing = die cast aluminium, IP66.

JSAHM/F 10, 16, 16 N, : I = 16A, U = 250V, poles = 10, 16, 32, all types +PE, connection = spring with actuator 2,5 mm2, housing = die cast aluminium, IP66.

3 Multipole connector series CD / RD:

CDM/F 07, 07 N, 08 (U = 50V ac/120 V dc), 15, 25, 25 Z, 40, 64 : I = 10A, U = 250V, poles 7, 8, 15, 25, (50), 40, (80), 64, (128) +PE, connection = crimp 2,5 mm2, housing = die cast aluminium, (CDM/F 07 additional plastic), IP66, IP66/IP68 (series CG/MG for CDM/F 40, 64), plastic (series T-Type for CDM/F 40, 64) IP66.

Series RD (HNM = high number of matings), RDM/F 40, 64 : I = 10A, U = 250V, poles = 40, 64 +PE, connection = crimp 2,5 mm2, housings = die cast aluminium, IP66, IP66/IP68 (series CG/MG).

4 Multipole connector series CDD / RDD:

CDDM/F 24, 38, 42, 72, 72 N, 108, 108 N : I = 10A, U = 250V, poles = 24, 38, 42, 72, (76), 108, (144), (216) all types +PE, connection = crimp 2,5 mm2, housing = die cast aluminium, IP66, IP66/IP68 (series CG/MG for all but CDDM/F 38), plastic (T-Type) IP66.

Series RDD (HNM = high number of matings), RDDM/F 24, 42, 72, 108 : I = 10A, U = 250V, poles = 24, 42, 72, 108 + PE, connection = crimp 2,5 mm2, housings = die cast aluminium, IP66, IP66/IP68 (series CG/MG).

Multipole connectors series CDS (spring) / CDSH (spring with actuator) / CDSH ... NC (AutoShort) / JDS (spring, tin-plated contacts) / JDSH (spring with actuator, tin plated contacts):

CDSM/F 09, 18, 27, 42, 27 N, 42 N : I = 10A, U = 400V, poles = 9, 18, 27, 42, (54), (84) all types +PE, connection = spring 2,5 mm2, housing = die cast aluminium, IP66, IP66/IP68 (series CG/MG), plastic (T-Type) IP65.

CDSHM/F 09, 18, 27, 42, 27 N, 42 N : I = 10A, U = 400V, poles = 9, 18, 27, 42, (54), (84) all types +PE, connection = spring 2,5 mm2, housing = die cast aluminium, IP66, IP66/IP68 (series CG/MG), plastic (T-Type) IP65.

CDSHM/F 06 NC AutoShort connector : poles = 6 +PE. Female unmated connector : I = 6A, V = 250 V; mated connectors : I = 10A, V = 250 V.

JDSM/F 09, 18, 27, 42, 27 N, 42 N : I = 10A, U = 400V, poles = 9, 18, 27, 42, (54), (84) all types +PE, connection = spring 2,5 mm2, housing = die cast aluminium, IP66, IP66/IP68 (series CG/MG), plastic (T-Type) IP65.

JDSHM/F 09, 18, 27, 42, 27 N, 42 N : I = 10A, U = 400V, poles = 9, 18, 27, 42, (54), (84) all types +PE, connection = spring 2,5 mm2, housing = die cast aluminium, IP66, IP66/IP68 (series CG/MG), plastic (T-Type) IP65.

6 Multipole connector series CNE / JNE / CME / CCE / RCE (High Number of Matings) CMCE / CQE / CQEE / RQEE (High Number of Matings) / CSE / JSE / CSH / JSH / CMSH:

CNEM/F 06, 06 T, 06 X, 06 TX, 10, 10 T, 10 X, 10 TX, 16, 16 T, 16 X, 16 TX, 16 N, 16 TN, 16 XN, 16 TXN, 24, 24 T, 24 X, 24 TX, 24 N, 24 TN, 24 XN, 24 TXN, CNEM/F 06 RY, 06 TRY, 06 RYX, 06 TRYX, 10 RY, 10 TRY, 10 RYX, 10 TRYX, 16 RY, 16 TRYX, 16 RYX, 16 TRYX, 16 RYX, 16 TRYX, 16 TRYX, 16 TRYX, 24 TRYX, 24 TRYX, 24 TRYX, 24 TRYXN; I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, connection = screw 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

JNEM/F 06, 10, 16, 24 : I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, tin-plated contacts, connection = screw 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CMEM/F 03 T/ TX, CMEM/F 06, 10 T/ TN/ TX/ TXN, I = 16A, U = 830V, poles = 3+2(aux), 6+2(aux), 10+2(aux), 12+4(aux) (combining 06 T/ TX and 06 TN/ TXN), 20+4(aux) (combining 10 T/ TX and 10 TN/ TXN), connection = screw 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CMEM/F 16, 16 N, I = 16A, U = 400/690V, poles = 16+2(aux), 32+4 (combining 16 and 16 N), connection = screw 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

 $CCEM/F\ 06,\ 10,\ 16,\ 24,\ 16\ N,\ 24\ N,\ I=16A,\ U=500V,\ poles=6,\ 10,\ 16,\ 24,\ (32),\ (48)\ all\ types\ +PE,\ connection=crimp\ 4\ mm^2,\ housing=die\ cast\ al.,\ IP66,\ IP66/IP68\ (series\ CG/MG)\ ,\ plastic\ (series\ T-Type)\ IP65.$

RCEM/F 06, 10, 16, 24, 16 N, 24 N, High Number of Matings (HNM), I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, connection = crimp 4 mm2, housing = die cast al., IP66 (versions for HNM).

CMCEM/F 03, 06, 06 N, 10, 10 N, I = 16A, U = 830V, poles = 3+2(aux), 6+2(aux), 10+2 (aux), 12+4(aux) (combining 06 and 06 N), 20+4(aux) (combining 10 and 10 N), connection = crimp 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CMCEM/F 16, 16 N, I = 16A, U = 400/690V, poles = 16+2(aux), 32+4(aux) (combining 16 and 16 N), connection = crimp 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CQEM/F 10, 18, 32, 32 N, 46, 46 N, I = 16A, U = 500V, poles = 10, 18, 32, 46, (64), (92) all types +PE, connection = crimp 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CQEEM/F 40, 64, 40 N, 64 N, I = 16A, U = 500V, poles = 40, 64, (80), (128) all types +PE, connection = crimp 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

RQEEM/F 40, 64, 40 N, 64 N, High Number of Matings (HNM), I = 16A, U = 500V, poles = 40, 64, (80), (128) all types +PE, connection = crimp 4 mm2, housing = die castal., IP65, IP66, versions for HNM.

CSEM/F 06, 10, 16, 24, 16 N, 24 N, I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, connection = screwless 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

JSEM/F 06, 10, 16, 24, 16 N, 24 N, I=16A, U=500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, tin-plated contacts, connection = screwless 2,5 mm2, housing = die castal., IP66, IP66/IP68 (series CG/MG) , plastic (series T-Type) IP65.

CSSM/F 06, 10, 16, 16 N, 24, 24 N, I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, connection = screwless 2,5 mm2 (two terminals per pole), housing = die castal., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CSHM/F 06, 10, 16, 24, 16 N, 24 N, I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, connection = screwless with actuator 2,5 mm2, housing = die castal., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65. JSHM/F 06, 10, 16, 24, 16 N, 24 N, I = 16A, U = 500V, poles = 6, 10, 16, 24, (32), (48) all types +PE, tin-plated contacts, connection = screwless with actuator 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CMSHM/F 03, 06, 06 N, 10, 10 N, I = 16A, U = 830V, poles = 3+2(aux), 6+2(aux), 12+4(aux), 10+2(aux) (combining 06+06 N), 20+4(aux) (combining 10+10 N), housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

7 Connectors series CP:

CPM/F 06, 06 N, 06 RY, 06 RYN: poles = 6 + PE (12+PE), I = 35A, U = 400/690 V, connection = screw 6 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

8 Combined connectors series CX:

CXM/F 4/0 : poles = 4 +PE, I = 80A, U = 830V, connection = screw 16 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 4/2 : poles = 4 +PE, I = 80A, U = 830V, connection = screw 16 mm2, and 2 poles, I = 16A, U = 400V, connection = screw 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 4/8 : poles = 4 +PE, I = 80A, U = 400V, connection = screw 16 mm2, and 8 poles, I = 16A, U = 400V, connection = screw 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 6/36: poles = 6 +PE, I = 40A, U = 690V, connection = crimp 6 mm2, and 36 poles, I = 10A, U = 160V, connection = crimp 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 8/24: poles = 8 +PE, I = 16A, U = 230/400V, connection = crimp 4 mm2, and 24 poles, I = 10A, U = 160V, connection = crimp 2,5 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 12/2 : poles = 12 +PE, I = 40A, U = 690V, connection = crimp 6 mm2, and 2 poles, I = 10A, U = 250V, connection = crimp 2,5 mm2, housings = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

CXM/F 6/6: poles = 6 +PE, I = 100A, U = 690V, connection = crimp 35 mm2, and 6 poles, I = 16A, U = 400V, connection = crimp 4 mm2, housing = die cast al., IP66, IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

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CXM/F 6/12: poles = 6 +PE, I = 40A, U = 690V, connection = crimp 10 mm2, and 12 poles, I = 16A, U = 230/400V,
connection = crimp 4 mm2, housings = see 11.
Modular connector series MIXO:
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CX 01 YM/F: poles = 1, I = 200A, U = 1000V, connection = crimp 70 mm2.

CX 01 YPEM/ \hat{F} : poles = 1, I = 200A, U = 1000V, connection = crimp 70 mm2.

CX 02 GM/F: poles = 2, I = 100A, U = 1000V, connection = crimp 35 mm2.

CX 02 7M/F: poles = 2, I = 70A, U = 1000V, connection = crimp 25 mm2.

CX 02 4M/F : poles = 2, I = 40A, U = 1000V, connection = crimp 10 mm2.

CX 02 4AM/F: poles = 2, I = 40A, U = 1000V, connection = 40A mm2.

CX 02 4BM/F: poles = 2, I = 40A, U = 1000V, connection = axial screw 10 mm2.

 $CX \frac{3}{4} XDM/F$: poles 3, I = 40A, U = 830V + poles 4, I = 10A, U = 830V, connection = crimp 6 mm² / 2,5 mm².

CX 03 4M/F: poles = 3, I = 40A, U = 400/690V, connection = crimp 6 mm2.

CX 03 4BM/F : poles = 3, I = 40A, U = 500V, connection = crimp 10 mm2.

CX 04 XM/F: poles = 4, I = 40A, U = 830V, connection = crimp 6 mm².

CX 05 SM/F: poles = 5, I = 16A, U = 400V, connection = screwless 2,5 mm².

CX 06 CM/F: poles = 6, I = 16A, U = 500V, connection = crimp 4 mm2.

CX 08 CM/F: poles = 8, I = 16A, U = 400V, connection = crimp 4 mm2.

CX 12 DM/F: poles = 12, I = 10A, U = 250V, connection = crimp 2,5 mm2.

CX 17 DM/F: poles = 17, I = 10A, U = 160V, connection = crimp 2,5 mm2. CX 20 CM/F: poles = 20, I = 16A, U = 500V, connection = crimp 4 mm2.

CX 25 IM/F : poles = 25, I = 4A, U = 50Vac/120Vdc, connection = crimp 0,5 mm2.

CX 25 IBM/F: poles = 25, I = 4A, U = 50Vac/120Vdc, connection = crimp 0,75 mm2.

CX 02 P: for 2 quick couplings Ø 6,0 mm, CX 03 P: for 3 quick couplings Ø 1,6 – 3,0 – 4,0 mm (pneumatic). MIXO BUS holder module CX 02 BM/F: seats 2, for up to 2 connectors CX 01 BM/F (1P + shield, coaxial 75Ù), I = 10A, U = 50Vac/120Vdc, connection = crimp 2,5 mm2; CX 01 BCM/F (1P + screen, coaxial $50\dot{U}$) I = 16A, U = 50Vac/120Vdc, connection = crimp 4 mm2; CX 04 BM/F (4P + screen, multi-axial) I = 10A, U = 50Vac/120Vdc, connection = crimp 2,5 mm2; CX 08 BM/F (8P + screen) I = 5A, U = 50Vac/120Vdc, connection = crimp 0,5 mm2.

MIXO module for RJ-45 Cat 6 Class EA CX 01 J8M/F, CX 01 J8IM, CX 8 J6M, CX 08 J6IM, MIXO module for 1 RJ-45 connector + 4P CX 01 JM/F I = 10A, U = 250V, connection = crimp 2,5 mm2; MIXO module for 2 RJ-45 connectors + 8P CX 02 JM/F, I = 10A, U = 250V, connection = crimp 2,5 mm2;

MIXO adapter module for USB connector CX 01 UM/F, MIXO module adapter for DSub 9P connector CX 01 9VM/F, I = 5A, U = 50 Vac/120 Vdc, connection = crimp 0,5 mm2;

MIXO module CX 04 LM/F for POF (CX PLM/F) and MOST© (CX MLM/F) fibre optic contacts, or for coaxial contacts 50Ù CX 50 M/F or 75Ù CX 75 M/F.

MIXO module CX 04 RM/F for coaxial contacts 50Ù CX 50 RM/F or 75Ù CX 75 RM/F

MIXO fibre optic SC module CX 04 SCM/ SCF /SCF-H for 4 SC connectors Accessories: fixed assembly frames for 1, 2, 3, 4 or 6 modules with PE connection, material = die cast zinc. Housing = die cast al., IP66, , IP66/IP68 (series CG/MG), plastic (series T-Type) IP65.

10 Terminal block connectors series CTSE / CT/CTS:

CTM/F 06 L/R, 10 L/R, 16 L/R, 24 L/R : I = 16A, U = 500V, poles = 6, 10, 16, 24 (32), (48) all types +PE, connection = screw 2,5 mm2.

CTM/F 40 L/R, 64 L/R: I = 10 A, U = 250 V, poles = 40 + PE, 64 + PE, connection = screw 2,5 mm².

CTSEM/F 06 L/R, 10 L/R, 16 L/R, 24 L/R: I = 16A, U = 500V, poles = 6, 10, 16, 24 (32), (48) all types +PE, connection = screwless 2,5 mm2.

CTSM/F 40 L/R, 64 L/R: I = 10A, U = 250V, poles = 40 +PE, 64 +PE, connection = screwless 2,5 mm2.

11 Connector adapters series CJ / CJK / CLK / CX 1/2 BD:

CJ KF/M female and male adapter size "21.21". The female adapter is for RJ-45 cat. 5 female/female data connector (for bulkhead-mount fixed housing series CK (plastic, IP44 or IP65/IP67), CKA (aluminium or zinc alloy, IP44 or IP65/IP67) or CGK (zinc alloy, IP66/IP68). Male adapter for male RJ-45 cat. 5 data connector or patch cord, for free cable connector housings series CK/MK (plastic, IP44 or IP65/IP67), CKA/MKA (aluminium or zinc alloy, IP44 or IP65/IP67) or CGK/MGK (zinc alloy, IP66/IP68);

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CJK 8FT/8MT / 8IMT female and male adapters size "21.21". Female adapter for female/female RJ-45 cat. 6A data connector for bulkhead-mount fixed housing series CK (plastic, IP44 or IP65/IP67), CKA (aluminium or zinc alloy, IP44 or IP65/IP67) or CGK (zinc alloy, IP66/IP68). Male adapter for male RJ-45 cat. 6A data connector or patch cord, for free cable connector housings series CK/MK (plastic, IP44 or IP65/IP67), CKA/MKA (aluminium or zinc alloy, IP44 or IP65/IP67) or CGK/MGK (zinc alloy, IP66/IP68);

CLK 04 SCF/F-H/M adapters size "21.21" for 4 type SC fibre optic connectors, for housings series CK/MK (plastic, IP65/IP67), CKA/MKA (aluminium or zinc alloy, IP65/IP67) or CGK/MGK (zinc alloy, IP66/IP68).

12 Multipole connectors series CQ:

Connectors CQM/F 04/2: I = 40A, U = 400/690V, poles 4 + PE, connection = crimp 6 mm2 and I = 10A, U = 250V, poles = 2, connection = crimp 2,5 mm2, housing = plastic IP65/IP67.

Connectors CQ4M/F 03 : I = 40A, U = 400V, poles 3 +PE, connection = crimp 10 mm2, housing = plastic IP65/IP67 or die cast aluminium IP44 (IP65/IP67), or IP66/IP68 (series CGK/MGK).

Connectors CQM/F 05 : I = 16A, U = 230/400V (05), poles = 5 + PE, connection = crimp 2,5 mm2, housing = plastic IP65/IP67 or die cast aluminium IP44 (IP65/IP67), or IP66/IP68 (series CGK/MGK).

Connectors CQM/F 07 : I = 10A, U = 400V, poles = 7 + PE, connection = crimp 2,5 mm2, housing = plastic IP65/IP67 or die cast aluminium IP44 (IP65/IP67), or IP66/IP68 (series CGK/MGK).

Connectors CQM/F 08 : I = 16A, U = 500V, poles 8 + PE, connection = crimp 4 mm2, housing = plastic IP65/IP67 Connectors CQM/F 12 : I = 16A, U = 400V (12), poles = 12 + PE, connection = crimp 2,5 mm2, housing = plastic IP65/IP67 or die cast aluminium IP44 (IP65/IP67), or IP66/IP68 (series CGK/MGK).

Connectors CQM/F 17 : I = 10A, U = 160V, poles 17, connection = crimp 2,5 mm2, housing = plastic IP65/IP67 Connectors CQM/F 21 : I = 6.5A, U = 50V ac / 120 V dc, poles = 21, connection = crimp 0,5 mm2, housing = plastic IP65/IP67 or die cast aluminium IP44 (IP65/IP67), or IP66/IP68 (series CGK/MGK).

13 Connector hoods and housings:

Series standard (w/ Class locking lever)

Series JEI®-P and JEI®-V

Series BIG

Series 830V

Series Simplex (w/ self-closing cover)

Series LS-Type (black for entertainment installations)

Series W-Type for aggressive environment

Series S-Type (EMC)

Series CG/MG - CGK-MGK (IP66/IP68)

Series CQ 08/ MQ 08 (insulating material)

Series R-Type (high temperatures)

Series C7-M7 (IP66/IP67) w/ V-Type lever

Series T-Type (insulating material enclosures)

Series T-Type Hygienic (/H = hygienic, /C = hygienic cold)

Series T-Type /W (aggressive environments)

Series E-Xtreme® (either w/ Class lever or V-Type lever or IP66/IP68)

Series COB System

2. DOCUMENTS AND DRAWINGS:

- ILME Catalogue CN.16 (XDG CN 416)
- ILME Catalogue JEI® 2015 (XDG JEI 1214)
- ILME Catalogue News 2016 (XDGNEW16 917)
- ILME Catalogue News 2017 (XDGNEW17 917)

3. TEST REPORTS:

ILME Test Departement:

- Test Report No.: 2017/D031 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D039 rev1.0 dated 26-07-2018.

- Test Report No.: 2017/D039-2 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D054 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D055 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D097 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D117 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D143 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D143-2 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D143-3 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D159 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D163 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D164 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D166 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D167 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D168 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D170 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D178 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D219 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D224 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D227 rev1.0 dated 26-07-2018. - Test Report No.: 2017/D232 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D234 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D239 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D241 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D243 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D245 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D254 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D278 rev1.0 dated 26-07-2018.
- Test Report No.: 2017/D345 rev1.0 dated 26-07-2018.

4. APPLICATION/LIMITATION:

- 4.1 According to BUREAU VERITAS Rules for the Classification of Steel Ships and IEC 60092 Series.
- 4.2 It is INDUSTRIA LOMBARDA MATERIALE ELETTRICO I.L.M.E. SpA's responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The above mentioned products are to be supplied by INDUSTRIA LOMBARDA MATERIALE ELETTRICO **I.L.M.E. SpA** in accordance with the type described in this certificate.
- 5.2 This type of product is within the category DBV of Bureau Veritas Rule Note NR320.

6. MARKING OF PRODUCT:

-According to manufacturer's specifications.

7. OTHERS:

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that INDUSTRIA LOMBARDA MATERIALE ELETTRICO I.L.M.E. SpA - Milano (MI) - ITALY, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

*** END OF CERTIFICATE ***