

## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>ComatReleco AG</b>
<b>Address</b>	Bernstraße 4, Worb, 3076, Switzerland
<b>Type</b>	Relays - Magnetic
<b>Description</b>	Electromagnetic relays – pluggable: C7-series: 2-pole plug-in type with dust cover and base C9-series: 2-pole plug-in type with dust cover and base C9-series: 4-pole plug-in type with dust cover and base  Sockets: S7-series: Sockets for C7-series relays S9-series: Sockets for C9-series relays  For detailed product description, pls. refer to appendix.
<b>Trade Name</b>	C7-series, C9-series
<b>Application</b>	Marine, offshore and industrial applications for use in environmental categories ENV1 and ENV2 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 - June 1990.
<b>Specified Standard</b>	Manufacturer's specification IACS E10 Rev. 8 / 2021

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## Type Approval Certificate

### Ratings

No. of poles: 2 & 4  
Switching current: 5...10 A  
Switching voltage: 250 VAC  
Coil voltage: 12...230 VAC / 12...110 VDC

For detailed ratings, pls. refer to appendix.

### Other Conditions

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re- approved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document HTS/ETS 42202-22/MK/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

### Appendix

**DESCRIPTION**

Electromagnetic relays with sockets (pluggable)

**RATINGS**

Type	No. of poles	Coil voltage (V)	Max. switching current (A)	Max. switching voltage (V)
<b>C7-series: Industrial Relays - pluggable</b>				
C7-G20/AC...V	2	12, 24, 48, 115, 230 VAC 50/60 Hz	10	250
C7- G20X/AC...V				
C7- G20/DC...V		12, 24, 48, 110 VDC		
C7- G20X/DC...V				
C7- G20DX/DC...V				
C7- G20FX/DC...V				
C7-H23X/AC...V	2	230 VAC 50/60 Hz	10	250
C7-H23X/DC...V		24 VDC		
C7-T2x/AC...V	2	12, 24, 115, 230 VAC 50/60 Hz	6	250 AC
C7-T2xX/AC...V				
C7-T2x/DC...V		12, 48, 60, 110, 220 VDC		
C7- T2xX/DC...V				
C7- T2xDX/DC...V				
C7- T2xFX/DC...V				
C7- T2xX/UC...V				
C7-W10/AC...V	1	48, 115, 230 VAC 50/60 Hz	10	250
C7-W10X/AC...V				
C7-W10/DC...V		12, 48, 60, 110 VDC		
C7-W10X/DC...V				
C7-W10FX/DC...V				
C7-W10BX/UC...V				
C7-X10/AC...V	1	24, 115, 230 VAC 50/60 Hz	10	250
C7- X10X/AC...V				
C7- X10/DC...V		12, 24, 48, 110 VDC		
C7- X10X/DC...V				
C7- X10FX/DC...V				
C7- X10BX/UC...V				
C9-A4x/AC...V	2	12, 24, 48,60, 230 VAC 50/60 Hz	5	250 AC
C9-A4xX/AC...V				
C9-A4x/DC...V		12, 24, 48, 60, 110, 220 VDC		
C9- A4xX/DC...V				
C9- A4xDX/DC...V				
C9- A4xFX/UC...V				
C9- A4xBX/UC...V				

**RATINGS (continued)**

Type	No. of poles	Coil voltage (V)	Max. switching current (A)	Max. switching voltage (V)
C9-E21X/AC...V	2	12, 24, 48, 60, 230 VAC 50/60 Hz	5	250
C9-E21FX/DC..V		12, 24, 48, 60, 110, 220 VDC		
C9-E21BX/DC..V		24 VDC or AC		
C9-R21/AC...V	2	24, 48, 115, 230 VAC 50/60 Hz	10	120
C9-R21/DC...V		12, 24, 48, 60 VDC		

**Sockets:**

S7-C, S7-IO 8-pin socket for C7 relay  
 S9-M 14-pin socket for C9 relay