




A high-speed train, silver with orange accents, is shown from a front-quarter perspective on a track. The train is moving towards the viewer. Above the train, a complex system of overhead power lines and support poles is visible, extending into the distance. The background consists of green trees and a clear sky. The train's front features a large windshield and two sets of headlights on either side. The tracks are made of steel rails on a gravel bed.

heavy | mate[®] DD

- Rated voltage 250 V
- Rated current 8 A ... 9 A
- Termination: crimp
- Number of contacts: 24, 42, 72, 108



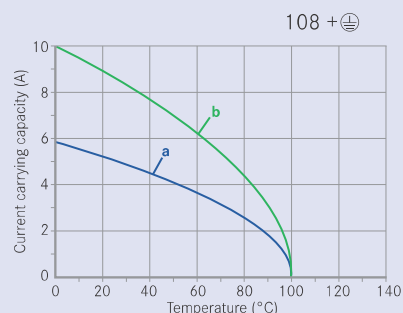
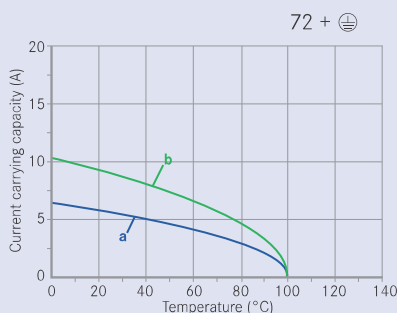
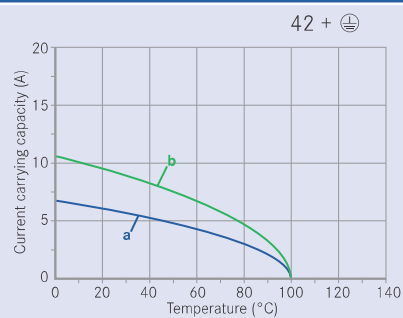
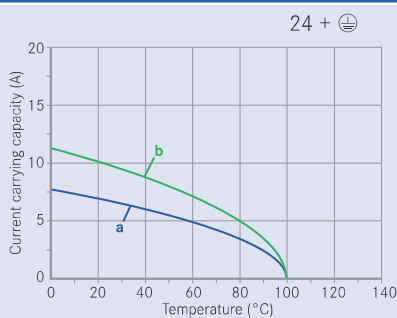
Approvals, Testhouse	Characteristics	Approval-Number
SEV 	250 V, 10 A	
UL 	600 V, 8,5 A	E 63093
CSA 	600 V, 10 A	LR 700721

In general approvals refer to representative versions of the connector series. Extent and specification of tests upon request.

heavy|mate® DD Characteristics contact inserts

General Characteristics	Standard	Value
Number of contacts		24 + ⊕ 42 + ⊕ 72 + ⊕ 108 + ⊕
Termination technique		crimp
Wire gauge		0.14 mm ² - 2.5 mm ²
Flammability	UL 94	V-0
Electrical Characteristics		
Rated voltage	IEC 60664-1	250 V (600 V UL / CSA)
Pollution degree	IEC 60664-1	2 (3 mated and locked)
Installation (overvoltage) category	IEC 60664-1	III
Material group	IEC 60664-1	III b
Rated impulse withstand voltage	IEC 60664-1	4 kV
Current carrying capacity	IEC 60512-5-2	see derating curves
Contact resistance	IEC 60512-2-1	≤ 5 m Ω
Insulation resistance	IEC 60512-3-1	≥ 10 ¹⁰ Ω
Climatical Characteristics		
Climatic category	IEC 60068-1	40 / 100 / 21
Upper temperature	IEC 60512-11-9	+ 100 °C
Lower temperature	IEC 60512-11-10	- 40 °C
Mechanical Characteristics		
Weight pin insert		44 g 50 g 63 g 86 g
IP-degree of protection pin insert	IEC 60529	unmated IP00 mated IP20
IP-degree of protection socket insert	IEC 60529	unmated IP20 mated IP20
Weight socket insert		41 g 50 g 67 g 88 g
Mechanical operation	IEC 60512-9-1	> 500 mating cycles
Materials		
Insert		PBTP
Colour insert		grey
Contacts		CuZn (brass)
Contact plating		Ag (silver)

Derating curves

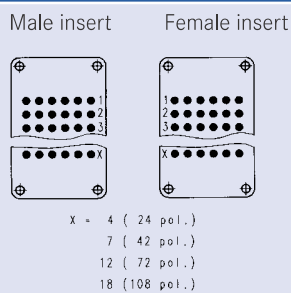


Description	Part Number	Drawing	Figure
Contact insert 24 + Ⓢ for turned contacts Size E 6 (Please order contacts separately, see page 43) Housings from page 196			
Male insert for turned crimp contacts	C146 10A024 000 9		
Female insert for turned crimp contacts	C146 10B024 000 9		
Contact insert 42 + Ⓢ for turned contacts Size E 10 (Please order contacts separately, see page 43) Housings from page 198			
Male insert for turned crimp contacts	C146 10A042 000 9		
Female insert for turned crimp contacts	C146 10B042 000 9		
Contact insert 72 + Ⓢ for turned contacts Size E 16 (Please order contacts separately, see page 43) Housings from page 205			
Male insert for turned crimp contacts	C146 10A072 000 9		
Female insert for turned crimp contacts	C146 10B072 000 9		

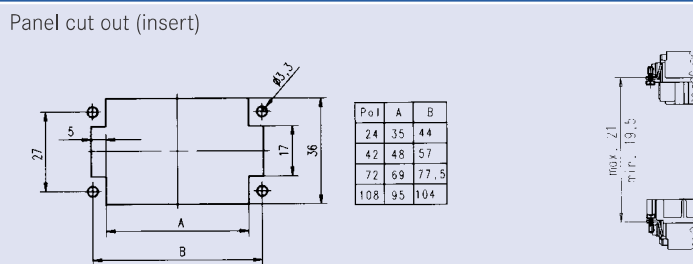
Description	Part Number	Drawing	Figure
Contact insert 108 + ⊕ for turned contacts Size E 24 (Please order contacts separately, see page 43) Housings from page 211			
Male insert for turned crimp contacts	C146 10A108 000 9		
Female insert for turned crimp contacts	C146 10B108 000 9		

Contact insert 216 + ⊕ for turned contacts Size E 48 (Please order contacts separately, see page 43) Housings from page 217			
Male insert for turned crimp contacts	C146 10A108 000 9 + C146 10A108 005 9		
Female insert for turned crimp contacts	C146 10B108 000 9 + C146 10B108 005 9		

Pin layout



Assembly instruction



heavy|mate® DD Crimp contacts

Supplied as	for wire gauge	AWG	Pieces	Part Number		Figure
				Male contact	Female contact	
Turned crimp contacts single contact 1.6mm						
silver plating	0.14 - 0,37 mm ²	26 - 22	100	VN01 016 0024 1C	VN02 016 0024 1C	
	0.5 mm ²	20	100	VN01 016 0025 1C	VN02 016 0025 1C	
	0.75 - 1,0 mm ²	20 - 16	100	VN01 016 0026 1C	VN02 016 0026 1C	
	1.5 mm ²	16 - 15	100	VN01 016 0027 1C	VN02 016 0027 1C	
	2.5 mm ²	14	100	VN01 016 0028 1C	VN02 016 0028 1C	
gold plating	0.14 - 0.37 mm ²	26 - 22	100	VN01 016 0024 2C	VN02 016 0024 2C	
	0.5 mm ²	20	100	VN01 016 0025 2C	VN02 016 0025 2C	
	0.75 - 1.0 mm ²	20 - 16	100	VN01 016 0026 2C	VN02 016 0026 2C	
	1.5 mm ²	16 - 15	100	VN01 016 0027 2C	VN02 016 0027 2C	
	2.5 mm ²	14	100	VN01 016 0028 2C	VN02 016 0028 2C	

Tools for turned crimp contacts

Description	for wire gauge	Part Number		
		Contact locator	Crimping dies	Tool
Removal tool for contacts	-	-	-	FG 0300 146 1
Service crimping tool	0.14 - 0.5 mm ² 0.5 - 1.5 mm ²	-	-	TA 0100 146
Crimping tool for single contacts	0.14 - 1.0 mm ² 1.5 mm ² 2.5 mm ²	TA 0010 146 000 1	TA 0000 184	TA 0000 TA 0500

Further tools see catalogue "Tools"