



HEAVY DUTY CONNECTORS

HCM/IP68 Hoods/Housings Series

OVERVIEW

Heavy duty connectors (HDC) from TE Connectivity (TE) have excellent and reliable performance in harsh environments. They are mainly used for data, signal, or power connection between different devices or functional units, the modular and standard interface can maximize application efficiency. Heavy duty connectors can be widely used in different industrial environments.

TE's HCM high-current series together with IP68 hoods/housing can easily satisfy the high current requirements in harsh environments. The HCM series has a maximum current of up to 650A, the contact position is selectable from 1 to 4, and the IP68 housing can provide a stable and reliable environmental protection (Salt spraying time of up to 500 hours is provided). This solution can easily meet customer's high current needs in harsh environment.

PRODUCT APPLICATION

Strong and reliable product design makes it widely used in

- New Energy
- Rail
- Power

PRODUCT SPECIFICATION

HCM insert series HCM250 has a current of up to 250A, and HCM350 has a current of up to 350A. The Latest HCM650 has a current of up to 650A.

- Inserts of crimping type, different wire diameter is provided according to customer needs (HCM250: 35-70mm², HCM350: 35-120mm², HCM650: 35 - 240 mm²)
- Crimping contacts, excellent shock resistance capacity
- Excellent withstand voltage and insulation performance (HCM650 extends rated voltage up to 4000V, and withstand voltage up to 12KV)
- Insert solutions of 1-4 positions are available, suitable for IP68 hoods/housings with optional single/multiple outlets IP68 hoods/housings series
- IP68 aluminum hoods and housing, made of aluminum alloy, together with powder coating surface treatment, strong and reliable, provide reliable protection in harsh outdoor environment
- Corrosion resistance confirmed by salt spray testing of 500h
- Stainless screw locking ensures reliable, water, dust and pressure tight connection
- Full range of products H6BPR -H32BPR

High Current Solutions - TE - Heavy Duty Connectors HCM/IP68 Hoods/Housings Series

MECHANICAL PERFORMANCES

- High current, HCM250 - 2000V/250A; HCM350 - 2000V/350A; HCM650 - 4000V/650A
- Insert mating cycle ≥ 500
- Installation method: screw locking
- Anticorrosion hoods/housing with salt spraying resistance of 500H
- Durable and reliable structure
- Operating temperature: -40°C to $+125^{\circ}\text{C}$

PRODUCT BENEFITS/FEATURES

- 250A/350A/650A high current solutions (250A/350A/650A)
- Aluminum alloy housing, durable structure, strong and reliable, with long service life
- IP68 protection degree, providing reliable connection in harsh outdoor environment
- RoHS compliant

MATERIAL

- Hoods/housings: Aluminum alloy
- Seals: Rubber, conductive rubber
- Materials of locks/fasteners: Stainless steel (screw locking)
- Surface treatment: Powder coating/deactivation + powder coating (EMC series)

STANDARDS AND SPECIFICATIONS

Standards:

- EN 61984: Connectors - Safety requirements and tests
- IEC 60068: Environmental testing
- IEC 60512: Connectors for electronic equipment - Test and measurements
- IEC 60529: Degrees of Protection Provided by Enclosures (IP Code)
- IEC 60664-1: Insulation coordination for equipment within low-voltage systems (Part 1)
- EN 61373: Railway application - Rolling stock equipment - Shock and vibration test

Product Specifications:

- [108-137171](#): HCM250 Insert Series Product Specification
- [108-137073](#): HCM350 Insert Series Product Specification
- [108-137074](#): HCM650 Insert Series Product Specification
- [108-137014](#): IP68 Hood and Housing Series Product Specification
- [108-137191](#): IP68 EMC Hood and Housing Series Product Specification
- [114-137171](#): HCM250 Insert Series Application Specification
- [114-137073](#): HCM350 Insert Series Application Specification
- [114-137074](#): HCM650 Insert Series Application Specification
- [114-137014](#): IP68 Hood and Housing Series Application Specification
- [114-137191](#): IP68 EMC Hood and Housing Series Application Specification

Heavy Duty Connectors

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PRODUCT OFFERING

Solution	Series	Components	PN	Description	Comments
1 Pos	HCM250	Hood	T1920160125-000	H16BPR-TGH-M25	Depends on cable diameter
		Housing	T1930160000-000	H16BPR-AG	
		Female Inserts	T2192503201-000	HCM250-FC	Crimp terminal
		Male Inserts	T2192503101-000	HCM250-MC	Crimp terminal
		Frame	T0924028544-000	H16BRP-2P-250-FRAME	
		Female Contacts	T2192502035-000	HCM250-FC-35	Crimp area acc. to DIN EN 46 235
			T2192502050-000	HCM250-FC-50	Crimp area acc. to DIN EN 46 235
			T2192502070-000	HCM250-FC-70	Crimp area acc. to DIN EN 46 235
		Male Contacts	T2192501035-000	HCM250-MC-35	Crimp area acc. to DIN EN 46 235
			T2192501050-000	HCM250-MC-50	Crimp area acc. to DIN EN 46 235
	T2192501070-000		HCM250-MC-70	Crimp area acc. to DIN EN 46 235	
	HCM350	Hood	T1920160125-000	H16BPR-TGH-M25	Depends on cable diameter
		Housing	T1930060000-000	H6BPR-AG	
		Female Inserts	T2193503201-000	HCM350-FC	Crimp terminal
		Male Inserts	T2193503101-000	HCM350-MC	Crimp terminal
		Frame	T0924015115-000	H6BPR-1P-350-FRAME	
		Female Contacts	T2193502035-000	HCM350-FC-35	Crimp area acc. to DIN EN 46 235
			T2193502050-000	HCM350-FC-50	Crimp area acc. to DIN EN 46 235
			T2193502070-000	HCM350-FC-70	Crimp area acc. to DIN EN 46 235
			T2193502095-000	HCM350-FC-95	Crimp area acc. to DIN EN 46 235
T2193502120-000			HCM350-FC-120	Crimp area acc. to DIN EN 46 235	
Male Contacts	T2193501035-000	HCM350-MC-35	Crimp area acc. to DIN EN 46 235		
	T2193501050-000	HCM350-MC-50	Crimp area acc. to DIN EN 46 235		
	T2193501070-000	HCM350-MC-70	Crimp area acc. to DIN EN 46 235		
	T2193501095-000	HCM350-MC-95	Crimp area acc. to DIN EN 46 235		
	T2193501120-000	HCM350-MC-120	Crimp area acc. to DIN EN 46 235		

Heavy Duty Connectors

HCM/IP68 Hoods/Housings Series

PRODUCT OFFERING

Solution	Series	Components	PN	Description	Comments	
2 Pos	HCM250	Hood	T1920160225-000	H16BPR-TGH-2M25	Depends on cable diameter	
		Housing	T1930160000-000	H16BPR-AG		
		Female Inserts	T2192503201-000	HCM250-FC	Crimp terminal	
		Male Inserts	T2192503101-000	HCM250-MC	Crimp terminal	
		Frame	T0924028544-000	H16BRP-2P-250-FRAME		
		Female Contacts	T2192502035-000	HCM250-FC-35	Crimp area acc. to DIN EN 46 235	
			T2192502050-000	HCM250-FC-50	Crimp area acc. to DIN EN 46 235	
			T2192502070-000	HCM250-FC-70	Crimp area acc. to DIN EN 46 235	
		Male Contacts	T2192501035-000	HCM250-MC-35	Crimp area acc. to DIN EN 46 235	
			T2192501050-000	HCM250-MC-50	Crimp area acc. to DIN EN 46 235	
			T2192501070-000	HCM250-MC-70	Crimp area acc. to DIN EN 46 235	
		Hood	T1920160225-000	H16BPR-TGH-2M25	Depends on cable diameter	
	HCM350	Housing	T1930160000-000	H16BPR-AG		
		Female Inserts	T2193503201-000	HCM350-FC	Crimp terminal	
		Male Inserts	T2193503101-000	HCM350-MC	Crimp terminal	
		Frame	T0924027845-000	H16BPR-2P-350-FRAME		
		Female Contacts	T2193502035-000	HCM350-FC-35	Crimp area acc. to DIN EN 46 235	
			T2193502050-000	HCM350-FC-50	Crimp area acc. to DIN EN 46 235	
			T2193502070-000	HCM350-FC-70	Crimp area acc. to DIN EN 46 235	
			T2193502095-000	HCM350-FC-95	Crimp area acc. to DIN EN 46 235	
		Male Contacts	T2193502120-000	HCM350-FC-120	Crimp area acc. to DIN EN 46 235	
			T2193501035-000	HCM350-MC-35	Crimp area acc. to DIN EN 46 235	
			T2193501050-000	HCM350-MC-50	Crimp area acc. to DIN EN 46 235	
			T2193501070-000	HCM350-MC-70	Crimp area acc. to DIN EN 46 235	
		T2193501095-000	HCM350-MC-95	Crimp area acc. to DIN EN 46 235		
		T2193501120-000	HCM350-MC-120	Crimp area acc. to DIN EN 46 235		
		HCM650	Hood	T1920240332-409	H24BPR-TGH-XL-3M32-EMC-C	Anti-corrosion performance, , 3xM32 threads
			Housing	T1930240000-409	H24BPR-AG-EMC-C	High anticorrosion performance
	Blind Plug		T3165320111-000	BLIND-32-M	Metal blind plug M32	
	Female Inserts		T2196503201-000	HCM650-FC	Crimp terminal	
	Male Inserts		T2196503101-000	HCM650-MC	Crimp terminal	
	Frame		T0924311125-000	H24BPR-3P-650-RRAME	3 Positions Frame	
	Female Contacts		T2196502070-001	HCM650-FC-70	Crimp area acc. to DIN EN 46 235	
			T2196502095-001	HCM650-FC-95	Crimp area acc. to DIN EN 46 235	
		T2196502120-001	HCM650-FC-120	Crimp area acc. to DIN EN 46 235		
		T2196502150-001	HCM650-FC-150	Crimp area acc. to DIN EN 46 235		
Male Contacts	T2196502185-001	HCM650-FC-185	Crimp area acc. to DIN EN 46 235			
	T2196501070-001	HCM650-MC-70	Crimp area acc. to DIN EN 46 235			
	T2196501095-001	HCM650-MC-95	Crimp area acc. to DIN EN 46 235			
	T2196501120-001	HCM650-MC-120	Crimp area acc. to DIN EN 46 235			
	T2196501150-001	HCM650-MC-150	Crimp area acc. to DIN EN 46 235			
	T2196501185-001	HCM650-MC-185	Crimp area acc. to DIN EN 46 235			

Heavy Duty Connectors

HCM/IP68 Hoods/Housings Series

PRODUCT OFFERING

Solution	Series	Components	PN	Description	Comments	
3 Pos	HCM250	Hood	T1920240325-002	H24BPR-TGH-XL-3M25	Depends on cable diameter	
		Housing	T1930240000-000	H24BPR-AG		
		Female Inserts	T2192503201-000	HCM250-FC	Crimp terminal	
		Male Inserts	T2192503101-000	HCM250-MC	Crimp terminal	
		Frame	T0924049044-100	H24BPR-4P-250-M-FRAME		
			T0924049044-200	H24BPR-4P-250-F-FRAME		
		Female Contacts	T2192502035-000	HCM250-FC-35	Crimp area acc. to DIN EN 46 235	
			T2192502050-000	HCM250-FC-50	Crimp area acc. to DIN EN 46 235	
			T2192502070-000	HCM250-FC-70	Crimp area acc. to DIN EN 46 235	
		Male Contacts	T2192501035-000	HCM250-MC-35	Crimp area acc. to DIN EN 46 235	
			T2192501050-000	HCM250-MC-50	Crimp area acc. to DIN EN 46 235	
			T2192501070-000	HCM250-MC-70	Crimp area acc. to DIN EN 46 235	
	HCM350	Hood	T1920240325-002	H24BPR-TGH-XL-3M25	Depends on cable diameter	
		Housing	T1930240000-000	H24BPR-AG		
		Female Inserts	T2193503201-000	HCM350-FC	Crimp terminal	
		Male Inserts	T2193503101-000	HCM350-MC	Crimp terminal	
		Frame	T0924311044-000	H24BRP-3P-350-FRAME		
		Female Contacts	T2193502035-000	HCM350-FC-35	Crimp area acc. to DIN EN 46 235	
			T2193502050-000	HCM350-FC-50	Crimp area acc. to DIN EN 46 235	
			T2193502070-000	HCM350-FC-70	Crimp area acc. to DIN EN 46 235	
			T2193502095-000	HCM350-FC-95	Crimp area acc. to DIN EN 46 235	
			T2193502120-000	HCM350-FC-120	Crimp area acc. to DIN EN 46 235	
		Male Contacts	T2193501035-000	HCM350-MC-35	Crimp area acc. to DIN EN 46 235	
			T2193501050-000	HCM350-MC-50	Crimp area acc. to DIN EN 46 235	
			T2193501070-000	HCM350-MC-70	Crimp area acc. to DIN EN 46 235	
			T2193501095-000	HCM350-MC-95	Crimp area acc. to DIN EN 46 235	
			T2193501120-000	HCM350-MC-120	Crimp area acc. to DIN EN 46 235	
		HCM650	Hood	T1920240332-409	H24BPR-TGH-XL-3M32-EMC-C	Anti-corrosion performance, 3xM32 threads
			Housing	T1930240000-409	H24BPR-AG-EMC-C	High anticorrosion performance
			Mounting frame	T1990240001-001	H24BPR-FRAME	
Female Inserts	T2196503201-000		HCM650-FC	Crimp terminal		
Male Inserts	T2196503101-000		HCM650-MC	Crimp terminal		
Frame	T0924311125-000		H24BPR-3P-650-RRAME	3 Positions Frame		
Female Contacts	T2196502070-001		HCM650-FC-70	Crimp area acc. to DIN EN 46 235		
	T2196502095-001		HCM650-FC-95	Crimp area acc. to DIN EN 46 235		
	T2196502120-001		HCM650-FC-120	Crimp area acc. to DIN EN 46 235		
	T2196502150-001		HCM650-FC-150	Crimp area acc. to DIN EN 46 235		
	T2196502185-001		HCM650-FC-185	Crimp area acc. to DIN EN 46 235		
Male Contacts	T2196501070-001		HCM650-MC-70	Crimp area acc. to DIN EN 46 235		
	T2196501095-001		HCM650-MC-95	Crimp area acc. to DIN EN 46 235		
	T2196501120-001		HCM650-MC-120	Crimp area acc. to DIN EN 46 235		
	T2196501150-001	HCM650-MC-150	Crimp area acc. to DIN EN 46 235			
	T2196501185-001	HCM650-MC-185	Crimp area acc. to DIN EN 46 235			

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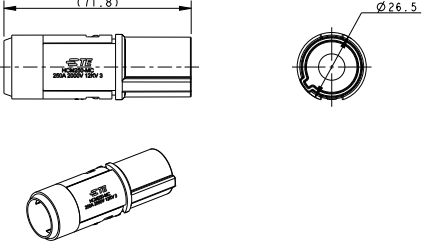
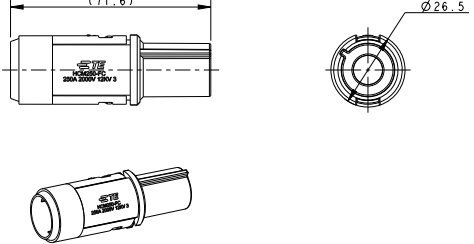
PRODUCT OFFERING

Solution	Series	Components	PN	Description	Comments
4 Pos	HCM250	Hood	T1920240425-002	H24BPR-TGH-XL-4M25	Depends on cable diameter
		Housing	T1930240000-000	H24BPR-AG	
		Female Inserts	T2192503201-000	HCM250-FC	Crimp terminal
		Male Inserts	T2192503101-000	HCM250-MC	Crimp terminal
		Frame	T0924049044-100	H24BPR-4P-250-M-FRAME	
			T0924049044-200	H24BPR-4P-250-F-FRAME	
		Female Contacts	T2192502035-000	HCM250-FC-35	Crimp area acc. to DIN EN 46 235
			T2192502050-000	HCM250-FC-50	Crimp area acc. to DIN EN 46 235
			T2192502070-000	HCM250-FC-70	Crimp area acc. to DIN EN 46 235
		Male Contacts	T2192501035-000	HCM250-MC-35	Crimp area acc. to DIN EN 46 235
			T2192501050-000	HCM250-MC-50	Crimp area acc. to DIN EN 46 235
			T2192501070-000	HCM250-MC-70	Crimp area acc. to DIN EN 46 235
	HCM350	Hood	T1926320163-001	H32BPR-TGXH-4S-M63	
		Housing	T1936320000-000	H32BPR-AG-4S	
		Female Inserts	T2193503201-000	HCM350-FC	Crimp terminal
		Male Inserts	T2193503101-000	HCM350-MC	Crimp terminal
		Frame	T0924048581-000	H32BRP-4P-350-FRAME	
		Female Contacts	T2193502035-000	HCM350-FC-35	Crimp area acc. to DIN EN 46 235
			T2193502050-000	HCM350-FC-50	Crimp area acc. to DIN EN 46 235
			T2193502070-000	HCM350-FC-70	Crimp area acc. to DIN EN 46 235
			T2193502095-000	HCM350-FC-95	Crimp area acc. to DIN EN 46 235
			T2193502120-000	HCM350-FC-120	Crimp area acc. to DIN EN 46 235
		Male Contacts	T2193501035-000	HCM350-MC-35	Crimp area acc. to DIN EN 46 235
			T2193501050-000	HCM350-MC-50	Crimp area acc. to DIN EN 46 235
T2193501070-000	HCM350-MC-70		Crimp area acc. to DIN EN 46 235		
T2193501095-000	HCM350-MC-95		Crimp area acc. to DIN EN 46 235		
T2193501120-000	HCM350-MC-120		Crimp area acc. to DIN EN 46 235		

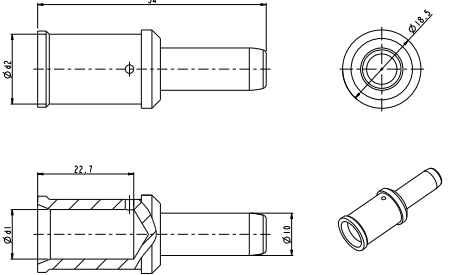
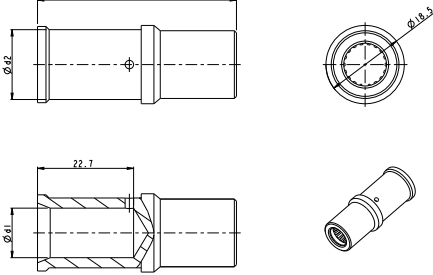
Overall dimensions of products

HIGH CURRENT SERIES

HCM250 insert

Male insert		Female insert	
T2192503101-000	HCM250-MC	T2192503201-000	HCM250-FC
			

HCM250 pin

Pin contact		Socket contact	
T21925010XX-000	HCM250-MC-XX	T21925020XX-000	HCM250-FC-XX
			

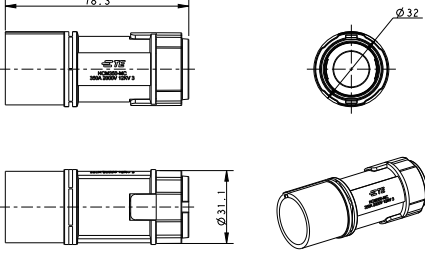
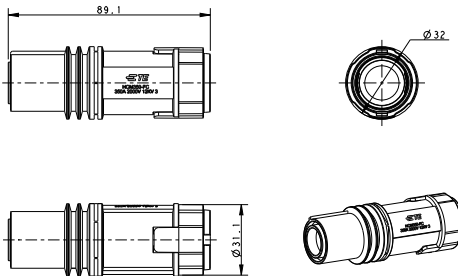
PIN CONTACT	PART NUMBER	DESCRIPTION	DIA d1	DIA d2	WIRE GAUGE	STRIPPING LENGTH	
						mm ²	mm
	T2192501035-000	HCM250-MC-35	8.4	12.5	35	22	
	T2192501050-000	HCM250-MC-50	10.2	14.5	50	22	
T2192501070-000	HCM250-MC-70	11.7	16.5	70	22		

SOCKET CONTACT	PART NUMBER	DESCRIPTION	DIA d1	DIA d2	WIRE GAUGE	STRIPPING LENGTH	
						mm ²	mm
	T2192502035-000	HCM250-FC-35	8.4	12.5	35	22	
	T2192502050-000	HCM250-FC-50	10.2	14.5	50	22	
T2192502070-000	HCM250-FC-70	11.7	16.5	70	22		

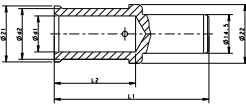
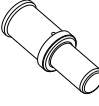
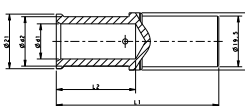
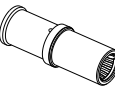
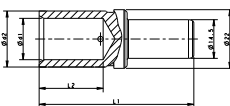

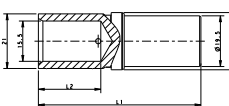
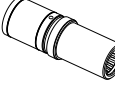
Overall dimensions of products

HIGH CURRENT SERIES

HCM350 insert

Male insert		Female insert	
T2193503101-000	HCM350-MC	T2193503201-000	HCM350-FC
			

HCM350 pin

Pin contact		Socket contact	
T21935010XX-000	HCM350-MC-XX	T21935020XX-000	HCM350-FC-XX
<p>TYPE 1: FOR WIRE GAUGE 35-95mm² # 1: GERMAN 35-95mm²</p>  		<p>TYPE 1: FOR WIRE GAUGE 35-95mm² # 1: GERMAN 35-95mm²</p>  	
<p>TYPE 2: FOR WIRE GAUGE 120mm² # 2: GERMAN 120mm²</p>  		<p>TYPE 2: FOR WIRE GAUGE 120mm² # 2: GERMAN 120mm²</p>  	

PIN CONTACT	PART NUMBER	DESCRIPTION	DIA d1	DIA d2	L1	L2	C1	C2	WIRE GAUGE	STRIPPING LENGTH	
										mm ²	mm
	T2193501035-000	HCM350-MC-35	8.2	12.5	52.5	26	7	20	35	26	
T2193501050-000	HCM350-MC-50	10	14.5	55	28.5	7	22	50	28		
T2193501070-000	HCM350-MC-70	11.5	16.5	55	28.5	5	22	70	28		
T2193501095-000	HCM350-MC-95	13.5	19	58	30.5	5	23	95	30		
T2193501120-000	HCM350-MC-120	15.5	21	58	24	3.5	20.5	120	24		

SOCKET CONTACT	PART NUMBER	DESCRIPTION	DIA d1	DIA d2	L1	L2	C1	C2	WIRE GAUGE	STRIPPING LENGTH	
										mm ²	mm
	T2193502035-000	HCM350-FC-35	8.2	12.5	57	26	7	20	35	26	
T2193502050-000	HCM350-FC-50	10	14.5	59.5	28.5	7	22	50	28		
T2193502070-000	HCM350-FC-70	11.5	16.5	59.5	28.5	5	22	70	28		
T2193502095-000	HCM350-FC-95	13.5	19	62.5	30.5	5	23	95	30		
T2193502120-000	HCM350-FC-120	15.5	21	62.5	24	3.5	20.5	120	24		

Overall dimensions of products

HIGH CURRENT SERIES

HCM650 insert

Male insert		Female insert	
T2196503101-000	HCM650-MC	T2196503201-000	HCM650-FC

HCM650 pin

Pin contact		Socket contact	
T2196501XXX-001	HCM650-MC-XX	T2196502XXX-001	HCM650-FC-XX
<p>SECTION A-A</p>		<p>SECTION B-B</p>	

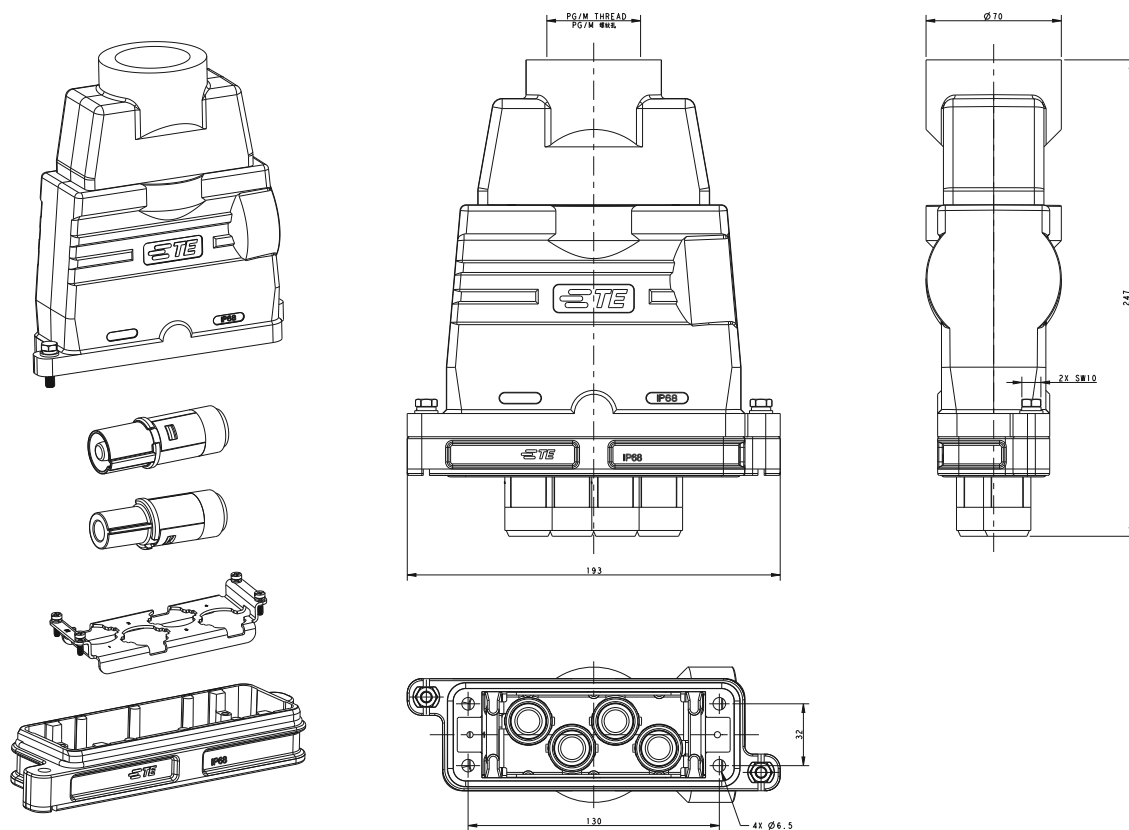
PART NUMBER	TYPE	DRAWING NO.	DESCRIPTION		Dia d1	Dia d2	L1	L2	L3	Number of crimps X	WIRE GAUGE mm ²	STRIPPING LENGTH mm
T2196501070-001	HCM650-MC-70	T2196501XXX000	HCM650 Male Contact, 70mm ² , Silver Plating		11.75	16.5	22	10	25	1	70	42
T2196501095-001	HCM650-MC-95	T2196501XXX000	HCM650 Male Contact, 95mm ² , Silver Plating		13.5	19	24.5	9	26	1	95	42
T2196501120-001	HCM650-MC-120	T2196501XXX000	HCM650 Male Contact, 120mm ² , Silver Plating		15.5	21	26.5	8	27	1	120	42
T2196501150-001	HCM650-MC-150	T2196501XXX000	HCM650 Male Contact, 150mm ² , Silver Plating		17	23.5	29	5	30	2	150	42
T2196501185-001	HCM650-MC-185	T2196501XXX000	HCM650 Male Contact, 185mm ² , Silver Plating		19	25.5	31	3	28	2	185	42
T2196502070-001	HCM650-FC-70	T2196502XXX000	HCM650 Female Contact, 70mm ² , Silver Plating		11.75	16.5	22	10	25	1	70	42
T2196502095-001	HCM650-FC-95	T2196502XXX000	HCM650 Female Contact, 95mm ² , Silver Plating		13.5	19	24.5	9	26	1	95	42
T2196502120-001	HCM650-FC-120	T2196502XXX000	HCM650 Female Contact, 120mm ² , Silver Plating		15.5	21	26.5	8	27	1	120	42
T2196502150-001	HCM650-FC-150	T2196502XXX000	HCM650 Female Contact, 150mm ² , Silver Plating		17	23.5	29	5	30	2	150	42
T2196502185-001	HCM650-FC-185	T2196502XXX000	HCM650 Female Contact, 185mm ² , Silver Plating		19	25.5	31	3	28	2	185	42

Overall dimensions of products

HCM HIGH CURRENT SOLUTIONS

HCM250

HCM250 male inserts + IP68 hoods/housings

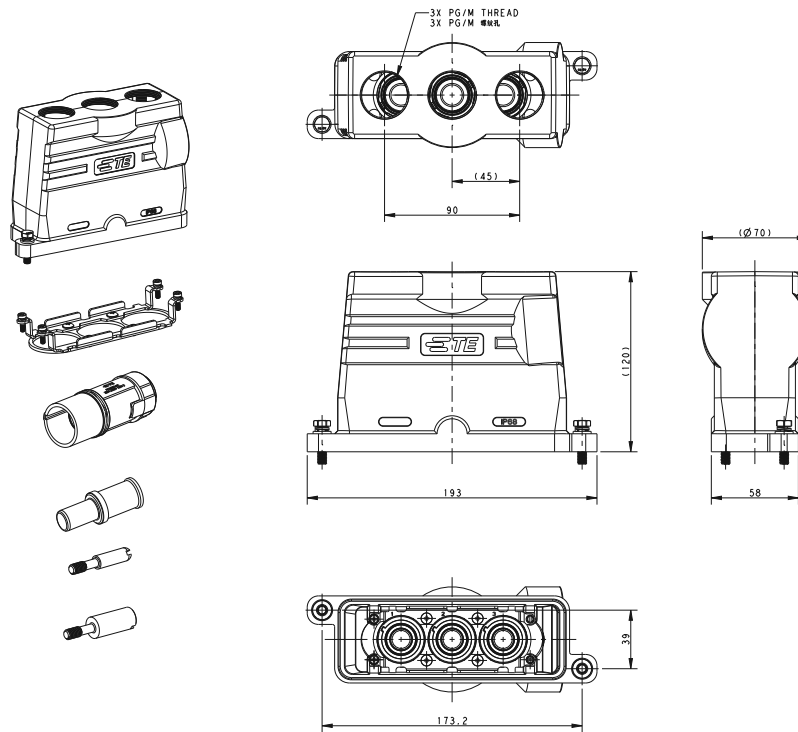


Overall dimensions of products

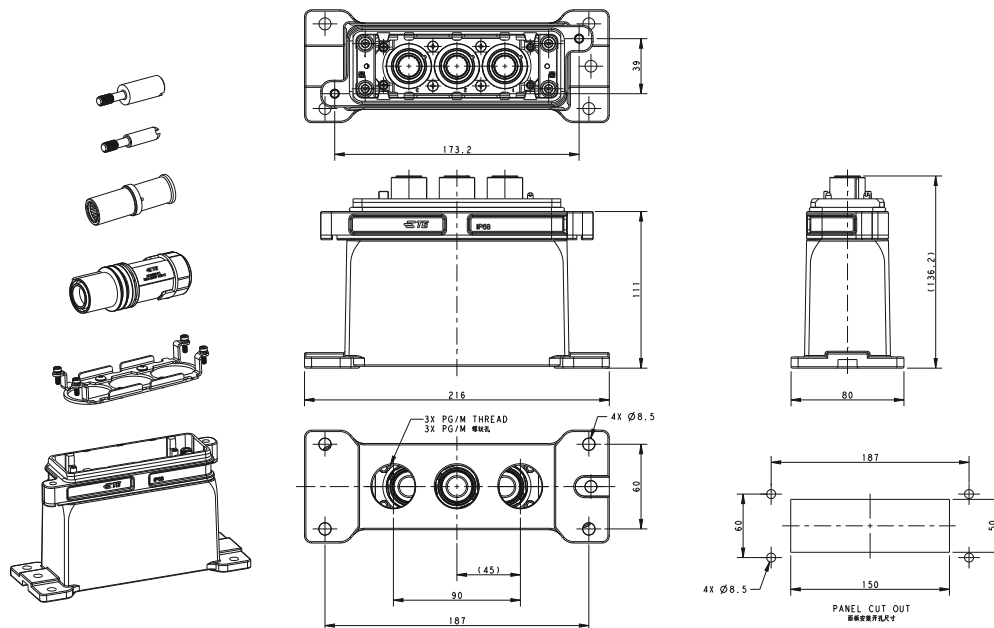
HCM HIGH CURRENT SOLUTIONS

HCM350

HCM350 male insert + IP68 hood



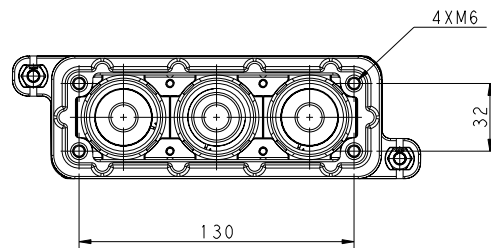
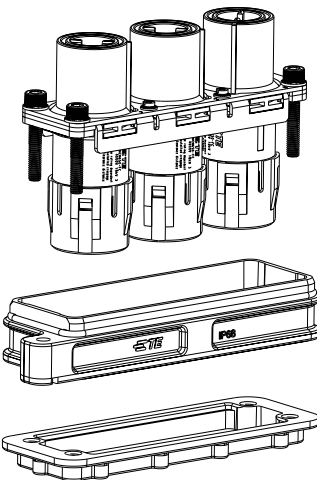
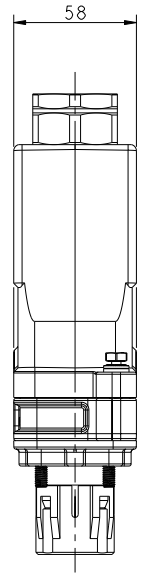
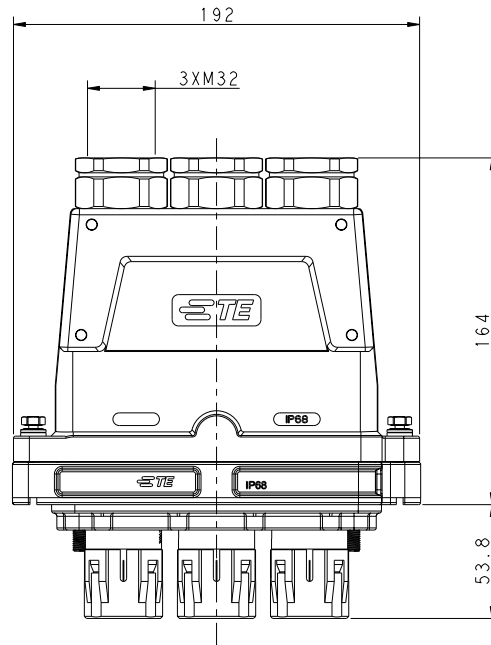
HCM350 female insert + IP68 housing



Overall dimensions of products

HCM HIGH CURRENT SOLUTIONS

HCM650



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