

MixMate series – the high-capacity connectors

MixMate integrates axial screw contacts and TOP connection technology in one plug-in connector. The compact design allows simultaneous transmission of high currents, high voltages and signals.



Technical data

	S 4	S 4/0	S 6/12	S 6/6
Standards / approvals				
Standards	DIN EN 61984 DIN EN 60664-1	DIN EN 61984 DIN EN 60664-1	DIN EN 61984 DIN EN 60664-1	DIN EN 61984 DIN EN 60664-1
Approvals	UL/CSA	UL/CSA	UL/CSA	UL/CSA
Inserts				
No. of poles				
– Power contact	4 (+PE)	4	6	6 (+PE)
– Signal contact			12	6
Rated voltage				
– Power contact	1000 V	830 V	630 V	630 V
– Signal contact			400 V	400 V
Rated voltage to UL/CSA	600 V	600 V	600 V	600 V
Rated current				
– Power contact	65 A	80 A	48 A	100 A
– Signal contact			16 A	16 A
Rated impulse withstand voltage				
– Power contact	8 KV	8 KV	8 KV	8 KV
– Signal contact			6 KV	6 KV
Pollution severity	3	3	3	3
Insulation resistance	$\geq 10^{10} \Omega$	$\geq 10^{10} \Omega$	$\geq 10^{10} \Omega$	$\geq 10^{10} \Omega$
Material	Glass-fibre reinforced PC (in UL list and approved for railway applications)	Glass-fibre reinforced PC (in UL list and approved for railway applications)	Glass-fibre reinforced PC (in UL list and approved for railway applications)	Glass-fibre reinforced PC (in UL list and approved for railway applications)
Temperature range	-40 °C ... +125 °C	-40 °C ... +125 °C	-40 °C ... +125 °C	-40 °C ... +125 °C
Flammability to UL 94	V-0	V-0	V-0	V-0
Mechanical service life				
– Plugging cycles Ag - Surface	≥ 500	≥ 500	≥ 500	≥ 500
– Plugging cycles Au - Surface	≥ 500	≥ 500	≥ 500	≥ 500
Contact resistance with min. and max. conductors				
	$\leq 4 \text{ m}\Omega$	$\leq 4 \text{ m}\Omega$	$\leq 4 \text{ m}\Omega$	$\leq 4 \text{ m}\Omega$
Contacts / Material				
Sockets and plug-in contact	Copper alloy	Copper alloy	Copper alloy	Copper alloy
Surface	Passivated silver or 0.8 μm gold on 2 μm Nickel	Passivated silver or 0.8 μm gold on 2 μm Nickel	Passivated silver or 0.8 μm gold on 2 μm Nickel	Passivated silver or 0.8 μm gold on 2 μm Nickel
Flexible conductor connection				
– Power contact	2.5 - 10 mm ² (AWG 14 ... 8)	1.5 - 16 mm ² (AWG 16 ... 6)	2.5 - 10 mm ² (AWG 14 ... 8)	16 - 35 mm ² (AWG 8 ... 2)
– Signal contact			0.5 - 2.5 mm ² (AWG 24 ... 14)	0.5 - 2.5 mm ² (AWG 24 ... 14)
Stripping length				
– Power contact	8 mm	8 mm	8 mm	13 mm
– Signal contact			12 mm	12 mm
Clamping torque/Axial connection				
– Screw connection		2 ... 3 Nm		
– Power contact	1.1 - 1.7 Nm		1.1 - 1.7 Nm	6 ... 8 Nm
– Signal contact			0.45 ... 0.9 Nm	0.45 ... 0.9 Nm
Fixings				
Hexagon socket, 2 mm	SW 2	SW 3	SW 2	SW 4
Screwdriver	0.6 x 3.5		0.6 x 3.5 mm	SD 0.6 x 3.5 or PZ 0
PE connection via plug/socket				
– Clamping range	1.5/2.5 ... 4/10 mm ²	1.5 ... 16 mm ² with cable lug	2.5 ... 10 mm ²	0.5 ... 4 mm ²
– AWG conductor	AWG 16/14 ... 12/8	AWG 16 ... 6	AWG 14 ... 8	AWG 20 ... 12
– Stripping length	8 mm	8 mm (for wire up to 6 mm ² only)	8 mm	8 mm
– Clamping torque	0.5 - 0.8 Nm	2 ... 2.5 Nm	2 ... 2.5 Nm	1.2 - 1.5 mm
– Blade dimensions	SD 0.8 x 4 mm	SD 0.8 x 4 mm or PZ 2	SD 0.8 x 4 mm or PZ 2	SD 0.8 x 4 mm or PZ 1
Note: Power contact = axial connection, Signal contact = screw connection, Switch off power supply before handling plug-in connectors. MixMate S6/6 with PE via axial connection with data identical to the power contact				

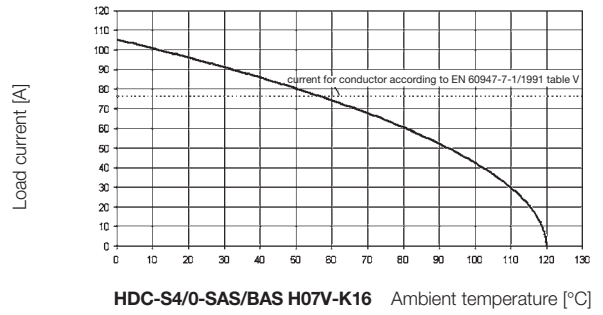
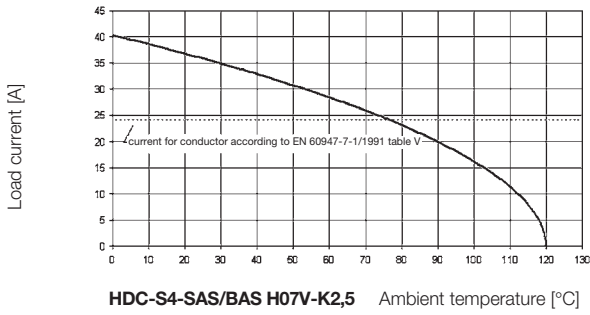
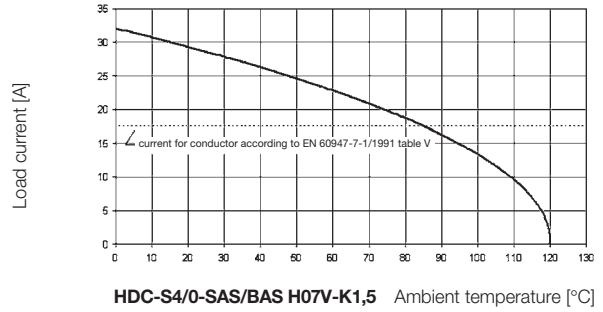
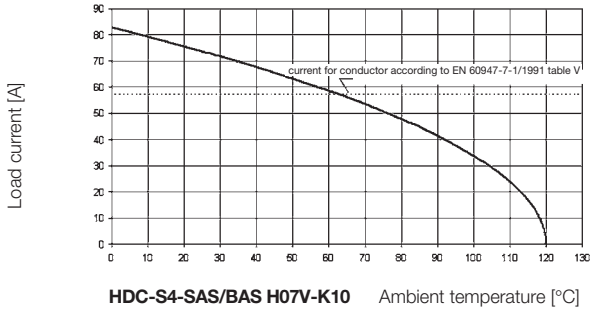
MixMate series – the high-capacity connectors

Technical data

Derating curves

Size 3
MixMate – 4 power contacts

Size 6
MixMate – 4 power contacts



Technical data

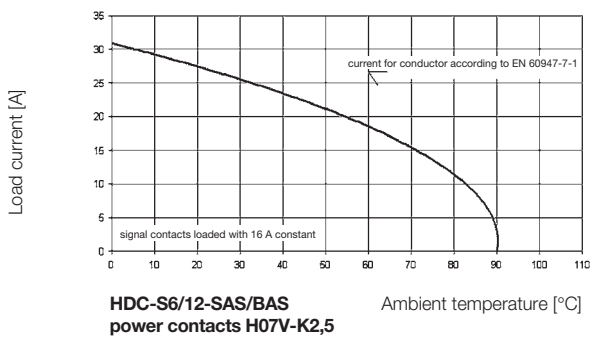
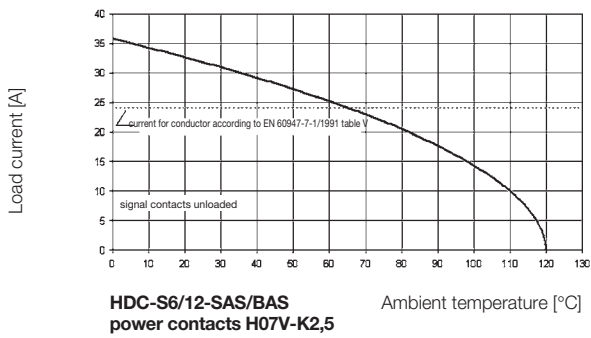
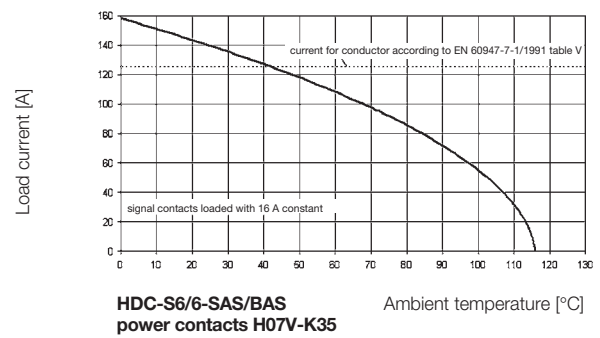
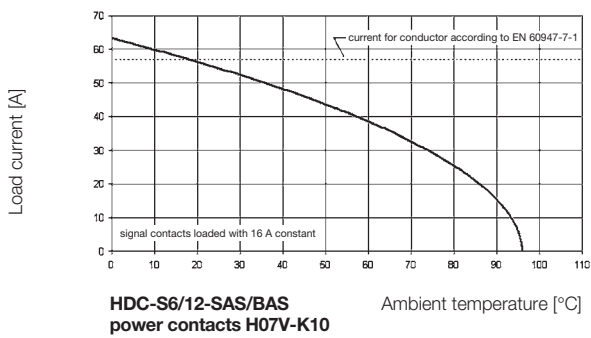
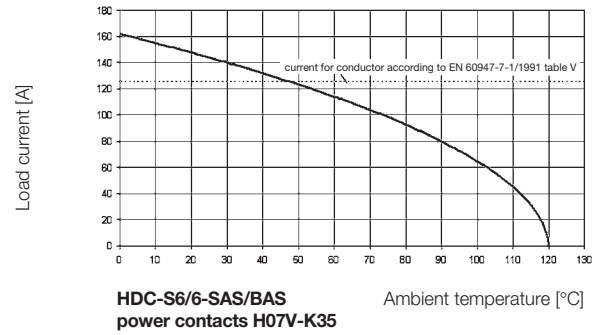
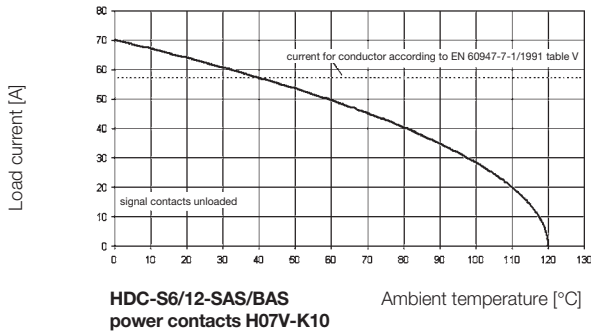
Derating curves

Size 6

MixMate – 6 power contacts/12 signal contacts

Size 8

MixMate – 6 power contacts/6 signal contacts



MixMate series - the high-capacity connectors

1000 V, 65 A, Size 3

4 + ⊕

Inserts

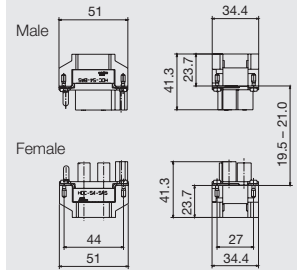


Axial screw connection

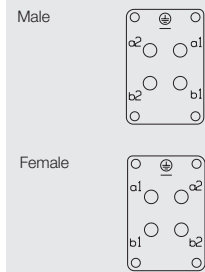


Insert	Designation	Order No.
Male	HDC S4 SAS	1789990000
Female	HDC S4 BAS	1789980000

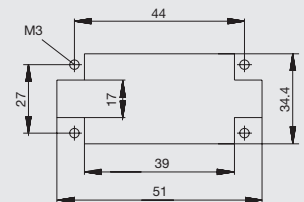
Dimensions



Arrangement of contacts



Mounting cut-out



Selection of Housings RockStar® IP65
Size 3

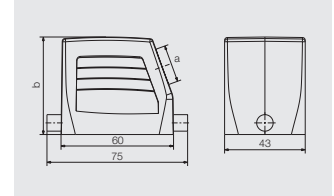


Hood

Hood, Cable Entry sideways



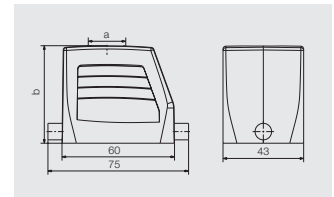
a	Version	Cover	b (mm)	Designation	Order No.
M 20	with thread		52	HDC 06B TSLU 1M20G	1788100000
M 20	with thread		52	HDC 06B TSLU 1M20G	1805930000
M 25	with thread		52	HDC 06B TSLU 1M25G	1788090000
M 25	with thread		72	HDC 16D TSLU 1M25G	1787480000



Hood, Cable Entry at top



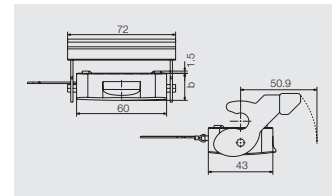
a	Version	Cover	b (mm)	Designation	Order No.
M 20	with thread		52	HDC 06B TOLU 1M20G	1788120000
M 25	with thread		52	HDC 06B TOLU 1M25G	1788110000
M 25	with thread		72	HDC 16D TOLU 1M25G	1787500000
M 32	with thread		72	HDC 16D TOLU 1M32G	1787490000



Cover



Version	Designation	Order No.
for hoods	HDC 06B DMDL 1LB	1665210000

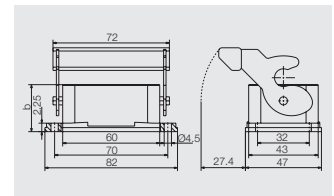


Base

Bulkhead housing



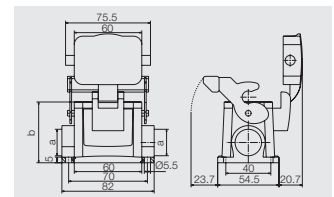
Version	Cover	b (mm)	Designation	Order No.
		29	HDC 06B ALU	1202100000
	with cover	47	HDC 06B ADLU	1202500000



Base housing



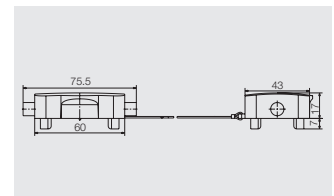
a	Version	Cover	b (mm)	Designation	Order No.
M 20	with thread		54	HDC 06B SLU 2M20G	1788140000
M 20	with thread	with cover	72	HDC 06B SDLU 2M20G	1788170000
M 25	with thread		54	HDC 06B SLU 2M25G	1788130000
M 25	with thread	with cover	72	HDC 06B SDLU 2M25G	1788160000



Cover



Version	Designation	Order No.
for bases	HDC 06B DODL 2BO	1665200000



MixMate series - the high-capacity connectors

630 V, 80 A, Size 6

4+0 + ⊕

Inserts

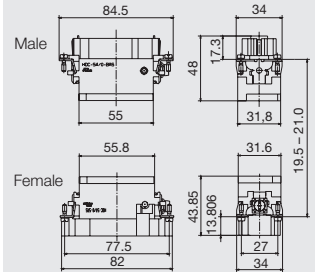


Axial screw connection

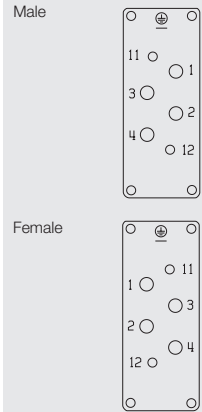


Insert	Designation	Order No.
Male	HDC S4 0 SAS	1789960000
Female	HDC S4 0 BAS	1789970000

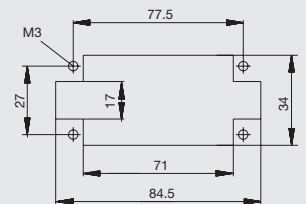
Dimensions



Arrangement of contacts



Mounting cut-out



Selection of Housings RockStar® IP65
Size 6

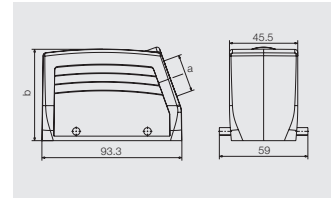


Hood

Hood, Cable Entry sideways



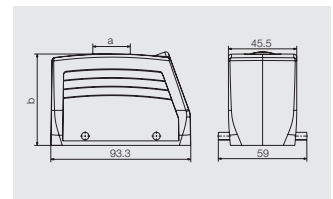
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 16B TSBU 1M25G	1788180000
M 25	with thread		76	HDC 40D TSBU 1M25G	1787010000
M 32	with thread		76	HDC 40D TSBU 1M32G	1787000000



Hood, Cable Entry at top



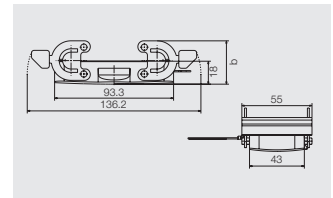
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 16B TOBU 1M25G	1788210000
M 25	with thread		76	HDC 40D TOBU 1M25G	1787070000
M 32	with thread		76	HDC 40D TOBU 1M32G	1787060000



Cover



Version	Designation	Order No.
for hoods	HDC 16B DMDQ 2QB	1665270000

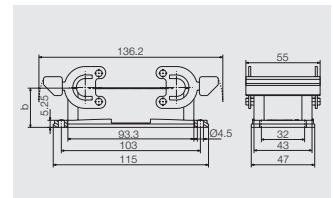


Base

Bulkhead housing



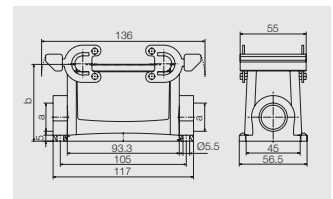
Version	Cover	b (mm)	Designation	Order No.
		29	HDC 16B ABU	1208600000



Base housing



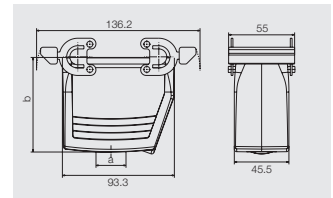
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		64	HDC 16B SBU 2M25G	1788240000
M 25	with thread		84	HDC 40D SBU 2M25G	1787120000
M 32	with thread		84	HDC 40D SBU 2M32G	1787110000



Coupling hood



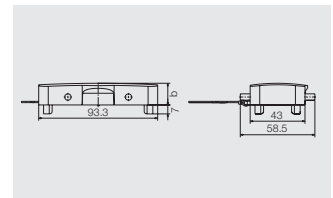
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		79	HDC 40D KBU 1M25G	1787200000
M 32	with thread		79	HDC 40D KBU 1M32G	1787190000



Cover



Version	Designation	Order No.
for bases	HDC 16B DODQ 4BO	1665260000



MixMate series - the high-capacity connectors

630 V, 48 A, Size 6

6+12 + ⊕

Inserts



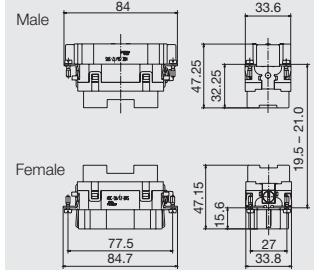
Axial screw connection



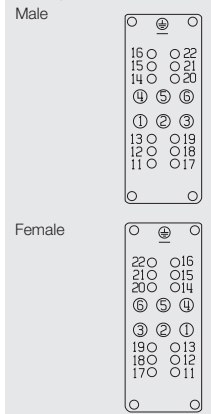
Insert	Designation	Order No.
Male	HDC S6 12 SAS	1790000000
Female	HDC S6 12 BAS	1790010000

Note Please note: the signal contacts are designed for a rated voltage of 400V and a rated current of 16A.

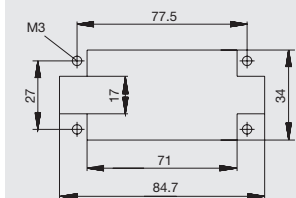
Dimensions



Arrangement of contacts



Mounting cut-out



Selection of Housings RockStar® IP65
Size 6

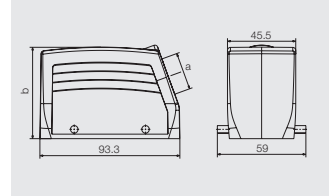


Hood

Hood, Cable Entry sideways



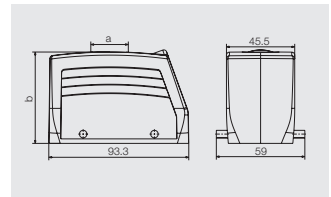
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 16B TSBU 1M25G	1788180000
M 25	with thread		76	HDC 40D TSBU 1M25G	1787010000
M 32	with thread		76	HDC 40D TSBU 1M32G	1787000000



Hood, Cable Entry at top



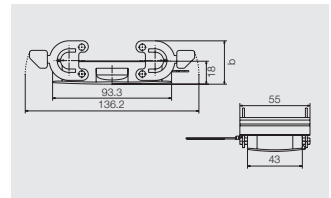
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 16B TOBU 1M25G	1788210000
M 25	with thread		76	HDC 40D TOBU 1M25G	1787070000
M 32	with thread		76	HDC 40D TOBU 1M32G	1787060000



Cover



Version	Designation	Order No.
for hoods	HDC 16B DMDQ 2QB	1665270000

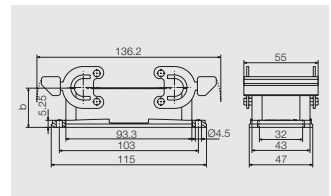


Base

Bulkhead housing



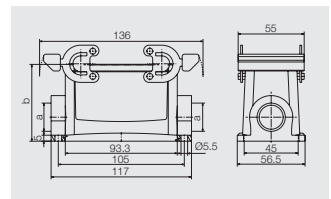
Version	Cover	b (mm)	Designation	Order No.
		29	HDC 16B ABU	1208600000



Base housing



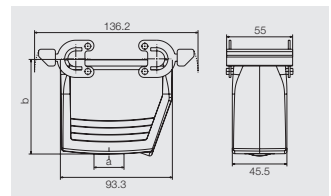
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		64	HDC 16B SBU 2M25G	1788240000
M 25	with thread		84	HDC 40D SBU 2M25G	1787120000
M 32	with thread		84	HDC 40D SBU 2M32G	1787110000



Coupling hood



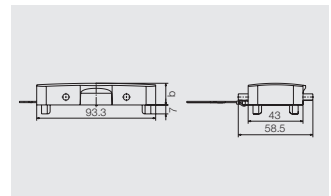
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		79	HDC 40D KBU 1M25G	1787200000
M 32	with thread		79	HDC 40D KBU 1M32G	1787190000



Cover



Version	Designation	Order No.
for bases	HDC 16B DODQ 4BO	1665260000



MixMate series - the high-capacity connectors

630 V, 100 A, Size 8

6+6 + ⊕

Inserts



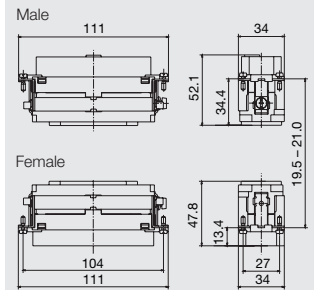
Axial screw connection



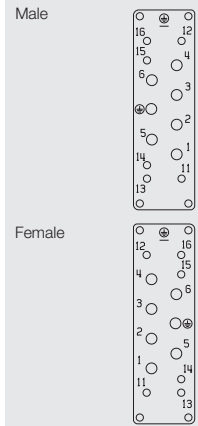
Insert	Designation	Order No.
Male	HDC S6 6 SAS	1790030000
Female	HDC S6 6 BAS	1790020000

Note Please note: the signal contacts are designed for a rated voltage of 400V and a rated current of 16A.

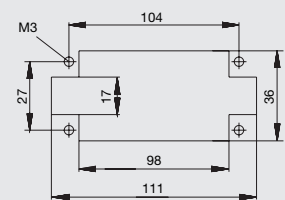
Dimensions



Arrangement of contacts



Mounting cut-out



Selection of Housings RockStar® IP65
Size 8

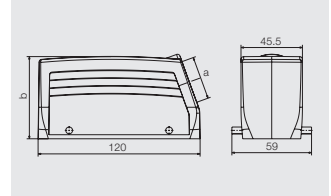


Hood

Hood, Cable Entry sideways



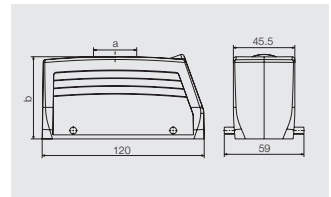
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 24B TSBU 1M25G	1787760000
M 32	with thread		61	HDC 24B TSBU 1M32G	1787750000
M 25	with thread		76	HDC 64D TSBU 1M25G	1786780000
M 32	with thread		76	HDC 64D TSBU 1M32G	1786770000



Hood, Cable Entry at top



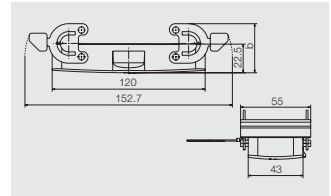
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		61	HDC 24B TOBU 1M25G	1787820000
M 32	with thread		61	HDC 24B TOBU 1M32G	1787810000
M 32	with thread		76	HDC 64D TOBU 1M32G	1786830000



Cover



Version	Designation	Order No.
for hoods	HDC 24B DMDQ 2QB	1665640000

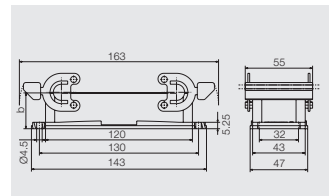


Base

Bulkhead housing



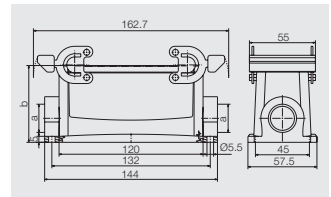
Version	Cover	b (mm)	Designation	Order No.
		29.3	HDC 24B ABU	1212400000



Base housing



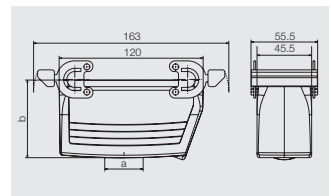
a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		64	HDC 24B SBU 2M25G	1787870000
M 25	with thread		84	HDC 64D SBU 2M25G	1786890000
M 32	with thread		84	HDC 64D SBU 2M32G	1786880000



Coupling hood



a	Version	Cover	b (mm)	Designation	Order No.
M 25	with thread		65	HDC 24B KBU 1M25G	1787920000
M 32	with thread		79	HDC 64D KBU 1M32G	1786960000



Cover



Version	Designation	Order No.
for bases	HDC 24B DODQ 4BO	1665630000

