

IBC 320

Industrial Battery Connector Series



**ANDERSON
POWER™**

Innovative Connector for the Future of Battery Charging - IBC 320

The patent pending Industrial Battery Connector (IBC) from Anderson Power™ is designed for industry-leading durability, reduced downtime, and easy assembly and disassembly. Featuring the first-ever patent-pending Anderson exclusive modular design with a contact cartridge, enabling quick contact repair and effortless assembly. Engineered for harsh environments, the IBC offers exceptional moisture and debris resistance with the industry-first IP68-rated accessory kit. It is available in standard plug/receptacle or panel-mount configurations and supports up to 10 signal wires.



Anderson Power Exclusives

- Innovative Modular Cartridge Design: Fewer parts to stock and repair, with easy assembly and quick wire replacement.
- Contact Temperature Sensing: Enhances safety, reliability, uptime, and performance by preventing overheating and ensuring stable power transfer.
- Industry-Exclusive IP68 Upgrade Accessory Kit: Provides superior protection against dust and water while mated, ensuring extended contact life and consistently safe, reliable performance.
- Industry-Exclusive Panel Mount Option: Offers a unique mounting solution.
- Strain Relief for Power and Auxiliary Signal Wires: Extends wire life and ensures consistent performance.

Market Leading Features

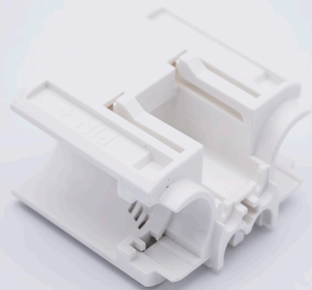
- Industry-Leading 10 Signal Configuration: Monitors more functions for faster, safer charging and increased battery and connector life.
- Latching Handle Accessory: Provides a secure mechanical connection with reduced effort in disconnections.

Industrial Battery Connector - IBC 320 Customizable Cartridges

Our patent-pending design minimizes the number of parts needed and simplifies repairs by supporting one housing being shared across three connector configurations. The modular contact cartridge system also lends itself to tool-less installation for reduced downtime when replacing contacts in the field / on the floor. Easily recognized by the color coded system the contact cartridges for IBC 320 supports; Air Tube, 4AUX and 10AUX configurations.

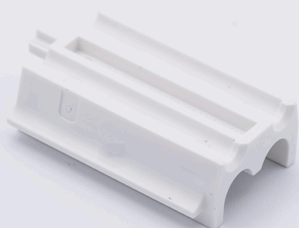
CONTACT HOLDER CARTRIDGE

SUPPLEMENTAL HOLDER CARTRIDGE



- Air Tube •

Base cartridge used as contact holder for both plug and receptacle



- Air Tube •

Add the supplemental holder to the base cartridge for receptacle use



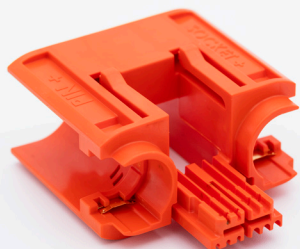
- 4 Auxiliary •

Base cartridge used as contact holder for both plug and receptacle



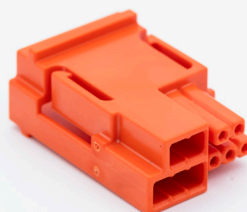
- 4 Auxiliary •

Add the supplemental holder to the base cartridge for receptacle use



- 10 Auxiliary •

Base cartridge used as contact holder for both plug and receptacle



- 10 Auxiliary •

Add the supplemental holder to the base cartridge for receptacle use

Configuration Example



4 Auxiliary cartridge configured as plug



4 Auxiliary cartridge configured as receptacle

Industrial Battery Connector - IBC 320 Features

DIN-compliant housings are available in plug, receptacle, and panel-mount receptacle formats. Each housing supports Air, 4-Auxiliary, or 10-Auxiliary cartridge configurations. A range of patent-pending, innovative design features enhances functionality and extends service life.

Housings - DIN, EN1175:2020, UL & CSA Compliant*

Plug Housing



Receptacle Housing



Panel Mount Housing



Patent pending receptacle outer shroud provides IP23 or IP68 when mated



Built-in latch keeps found on receptacle housings for secure connections



Keyed power & auxiliary strain relief to protect and extend cable life



Easy access to cartridge pins for simple removal and timely service

*See specifications for details

Industrial Battery Connector - IBC 320 Accessories

The IBC connector is supported by wide variety of modular accessories designed to enhance performance, durability, and functionality. These include IP68-rated weatherproofing kits, contact temperature sensors, and two handle options—all engineered to work seamlessly together. This accessory suite allows users to configure a complete, high-performance connector solution tailored to the most demanding environments.

Performance



Contact Temperature Sensing Capability - Upgrade available for all configurations. Using NTC sensor to measure the Negative Temperature Coefficient. As temperature increases, the resistance changes and can be measured using a simple circuit.

Protection

IP68 Rated Sealing Kit - Protection against dust and water while mated, ensuring extended contact life and consistently safe, reliable performance. Kit includes voltage cover and O-rings. Grommet sold separately. Available for 4 Aux and 10 Aux configurations.



Ergonomic



Basic Handle, Non-Latching - Can be used on both plug & receptacle. The handle is fixed to the housing using Philips screws.

Latching Handle - Can be used on plug only. Provides a secure mechanical connection with reduced force in disconnections. Latch prevents plug from disconnecting from receptacle. Spring loaded mechanism ensures mechanical connection. The handle is fixed to the housing with Philips screws.



Industrial Battery Connector - IBC 320 Specifications

ELECTRICAL SPECS

Current Ratings (A)								
Wire Size	50 mm ²	70 mm ²	95 mm ²	120 mm ²	1/0	2/0	3/0	4/0
EN1175	250	-	320	-	-	-	-	-
CSA	170	220	245	280	185	210	230	270
UL	290	350	405	460	310	325	380	440

Voltage Rating (V)	
AC/DC	DWV (AC)
150	2000
600	2200
600	2200

Contact Wire Compatibility						
Contact Part No.	320-1150 320-1050	320-1170 320-1070	320-1195 320-1095	320-1104 320-1004	320160-40P 320160-40S	4803G3 4802G3
mm ²	50 mm ²	70 mm ²	95 mm ²	120 mm ²	1.5 - 2.5	0.25 - 0.50
AWG	1/0	2/0	3/0	4/0	16 - 14	24 - 20

Agency Approvals
UL 1977
CSA 22.2 No. 182.3-16
EN1175:2020*

MECHANICAL & MATERIAL SPECS

Mechanical Data			
	4 Aux	Air Tube	10 Aux
Average Insertion Force	23 lbs.	18 lbs.	21 lbs.
Average Retention Force	34 lbs.	27 lbs.	24 lbs.
Min Operating Temp (°C)	-20° C		
Max Operating Temp (°C)	105° C		
Degree of Protection (no kit)	IP23		
Degree of Protection (with kit)	IP68		
Flammability Rating	Material rated to UL94-V0, Design rated V0 to UL746C		
Acid Resistance*	Yes		
Latching Handle Defeat Force	45 lbs.		
Power Wire Clamp Retention Force	240 lbs.		
Signal Clamp Wire Retention Force	100 lbs.	N/A	100 lbs.
Life Cycle (No Load)*	>5000		
Voltage Keying	24/36/48/72/80/96**		
4 Auxiliary Contact Sequencing	Power > Upper Aux + Lower Aux		
Air Tube Contact Sequencing	Power > Upper Aux > Air Tube		
10 Auxiliary Contact Sequencing	Power > All Aux		

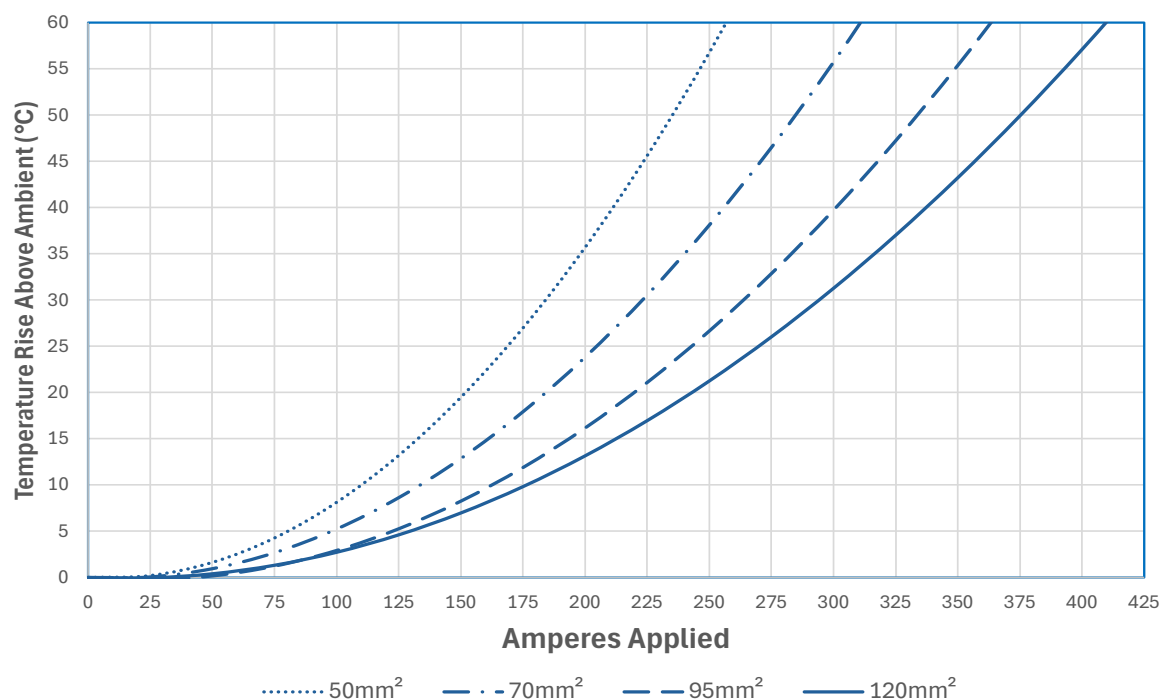
Material & Finish		
Component	Finish	Material
Housings	Black	PC/PBT
Power Clamp, Upper & Lower		
Aux Clamps, Upper & Lower (Non-Air)		
Latching & Non-Latching Handle	White	PC/PBT
Auxiliary Clamps, Air Lower		
Air Cartridge and Supplemental Holder		
Air Tubes	Purple	PC/PBT
4 Aux Cartridge and Supplemental Holder		
10 Aux Cartridge and Supplemental Holder	Orange	PC/PBT
Hardware/Screws	Passivated	Stainless Steel
Power Contacts & Auxiliary Contacts	Silver Plate	Copper
10 Aux Contacts	Gold Plate	Copper
Voltage Cover	Clear	PC
Plug O-ring	White	EPDM
Voltage O-ring	Light Blue	EPDM

* Per EN1175:2020 - Excludes 10 Aux signal contacts

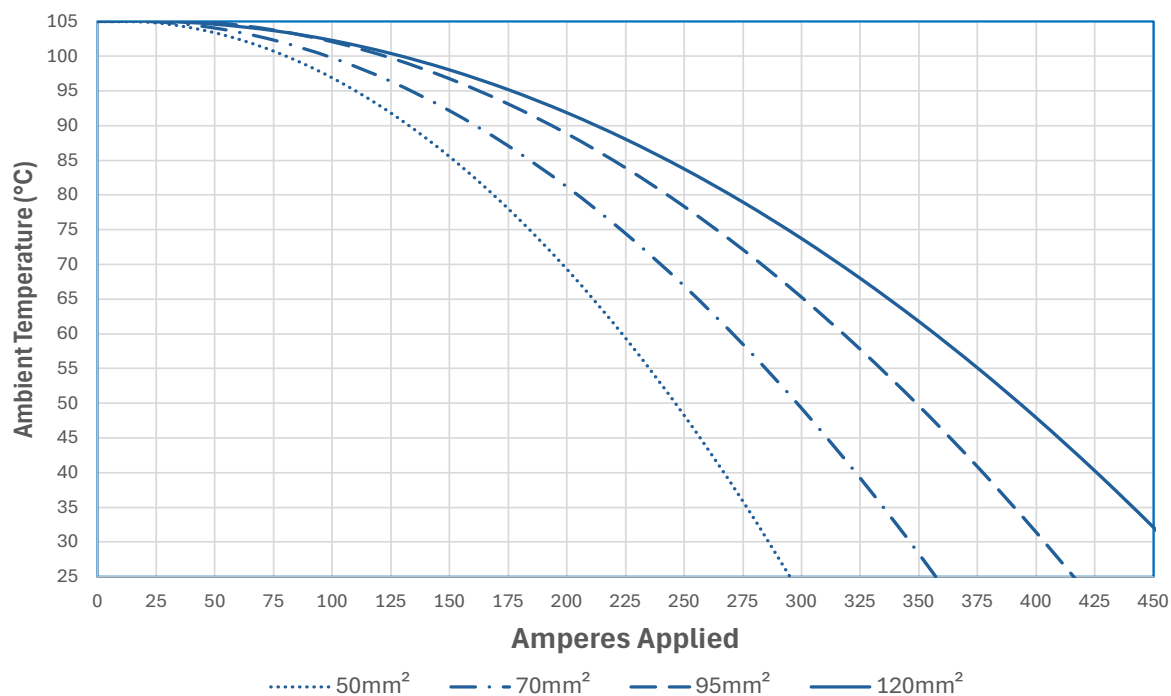
** Per DIN VDE 0623-589

Industrial Battery Connector - IBC 320 Temperature Charts - mm²

Industrial Battery Connector
Temperature Rise at Constant Current
Signal Contacts at 2A

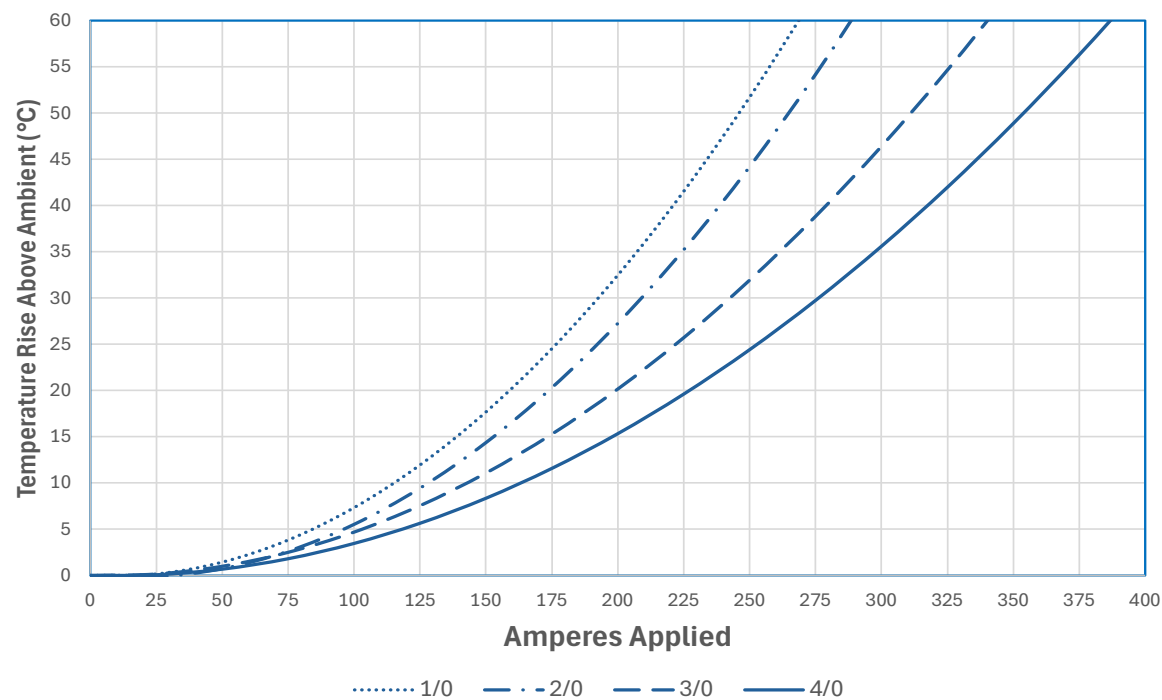


Industrial Battery Connector
Derating Curve at Constant Current
Signal Contacts at 2A

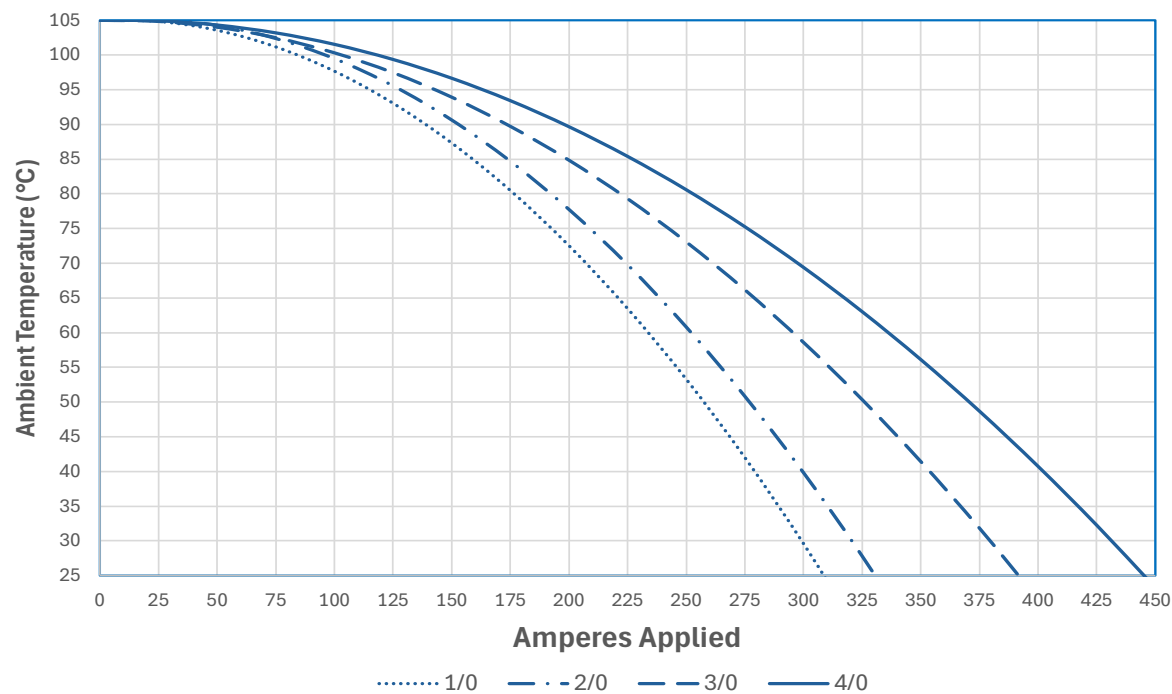


Industrial Battery Connector - IBC 320 Temperature Charts - AWG

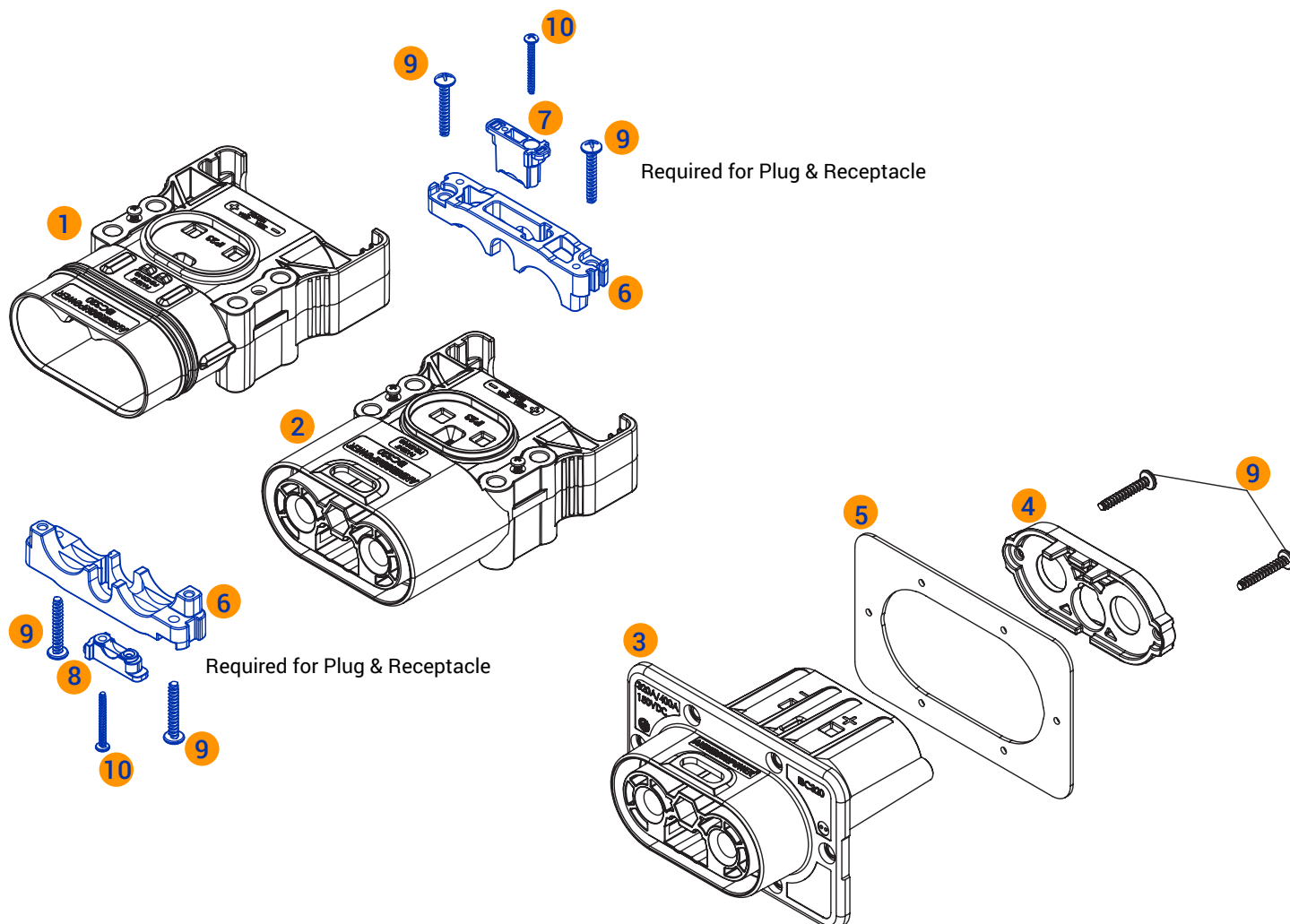
Industrial Battery Connector
Temperature Rise at Constant Current
Signal Contacts at 2A



Industrial Battery Connector
Derating Curve at Constant Current
Signal Contacts at 2A

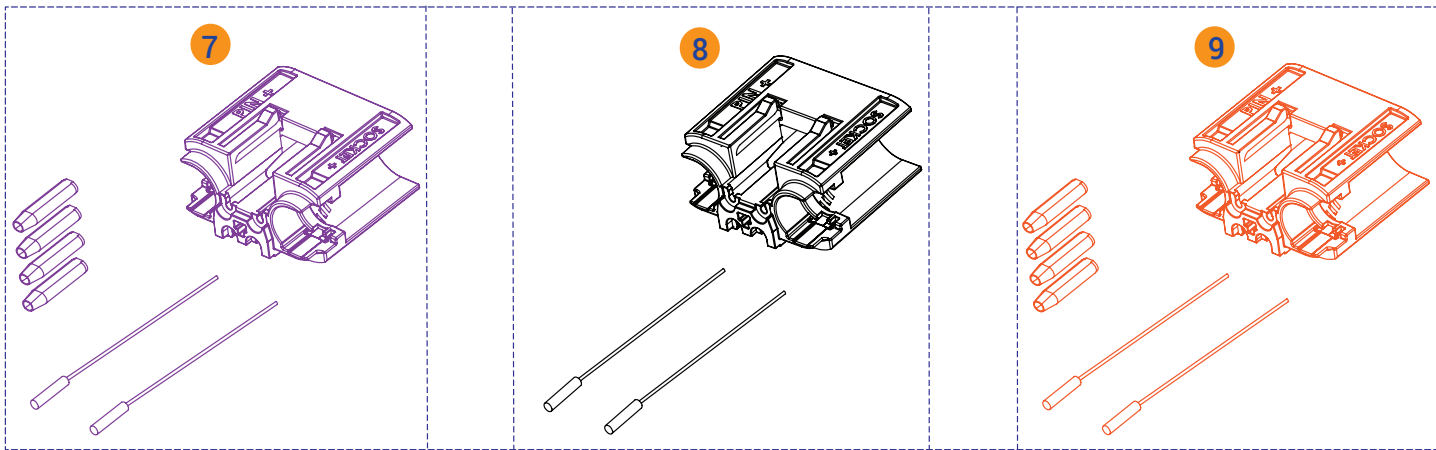
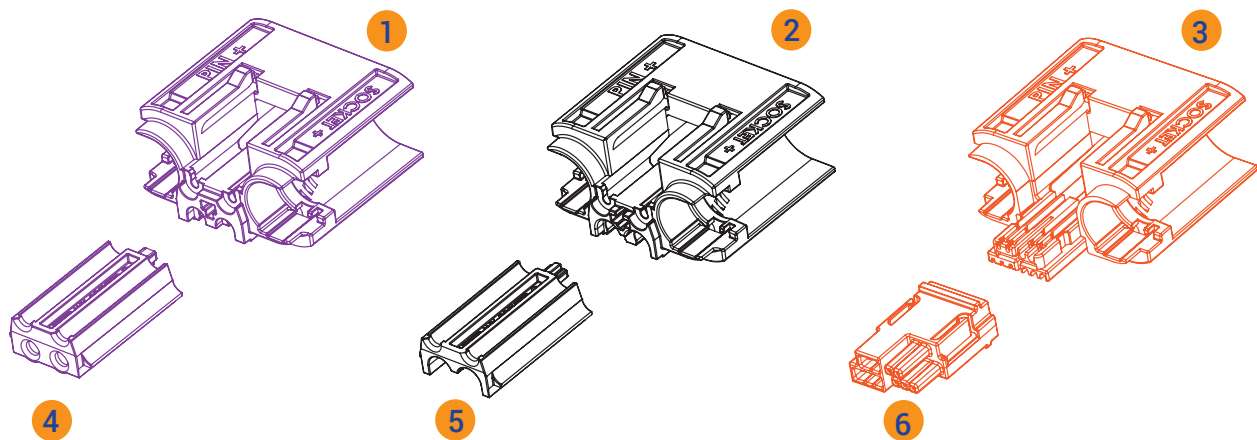


Industrial Battery Connector - IBC 320 Build Your Own - Housings



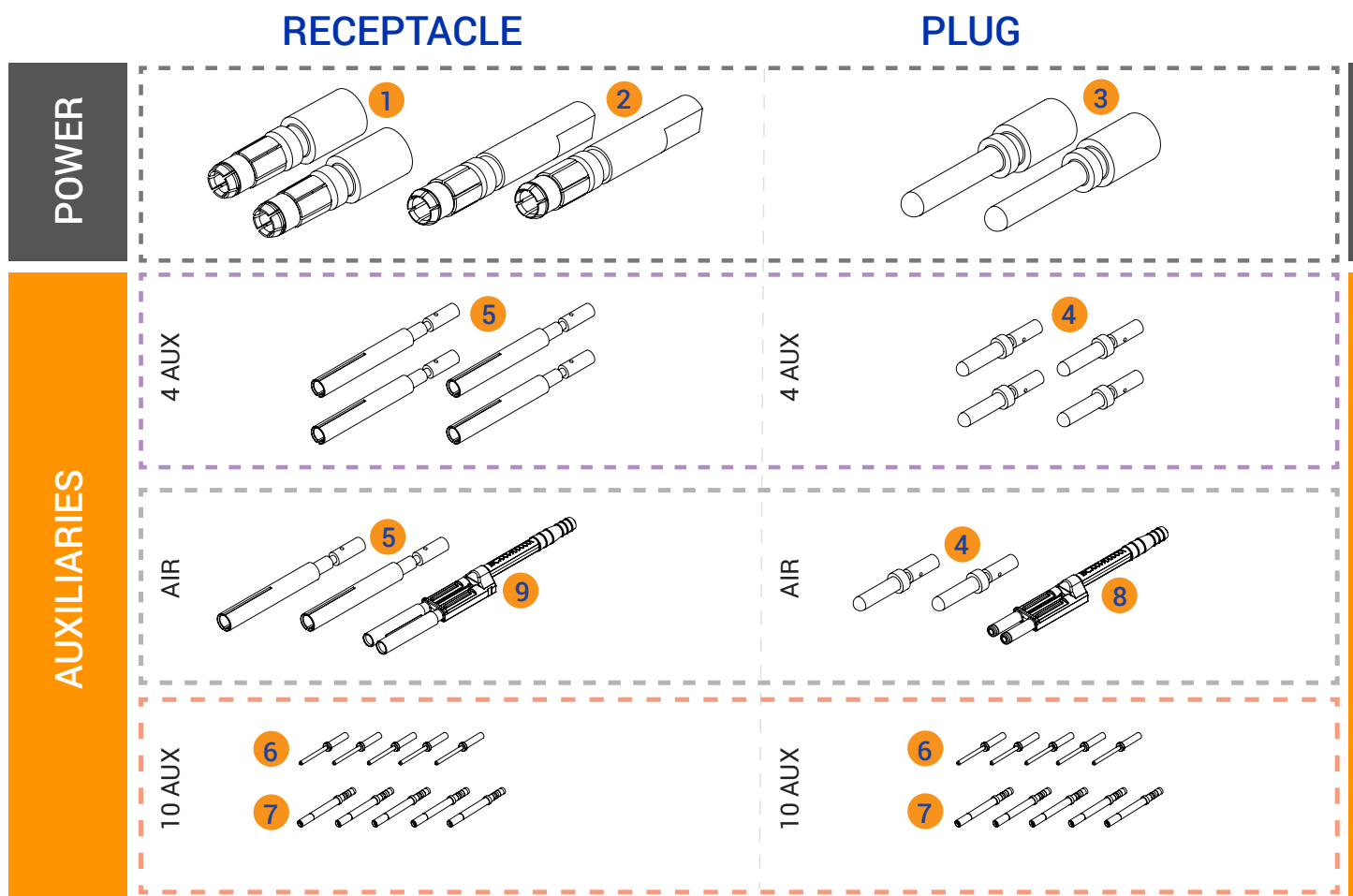
Housing Components		
Position	Description	Part Number
1	IBC 320 Plug Housing	IBC320-PLUG-BLK
2	IBC 320 Receptacle Housing	IBC320-REC-BLK
3	IBC 320 Panel Mount Receptacle Housing	IBC320-PMREC-BLK
4	IBC 320 Panel Mount Receptacle Backplate	IBC320-PMREC-PLATE
	IBC 320 Panel Mount Backplate for Bus Bar	IBC320-PMREC-PLATE-BB
5	IBC 320 Panel Mount Receptacle Gasket	IBC320-PMGASKET
6	IBC 320 Base Cable Clamp	IBC320-CLAMP-BASE
7	IBC 320 Upper Auxiliary Clamp	IBC320-CLAMP-UPPER
8	IBC 320 Lower Auxiliary Signal Clamp	IBC320-CLAMP-LOWER-AUX
	IBC 320 Lower Auxiliary Air Tube Clamp	IBC320-CLAMP-LOWER-AIR
9	M4 x 25 Plastite, Pan Head, Stainless Steel Screw	H1120P66
10	M3 x 25 Plastite, Pan Head, Stainless Steel Screw	H1120P67

Industrial Battery Connector - IBC 320 Build Your Own - Cartridges



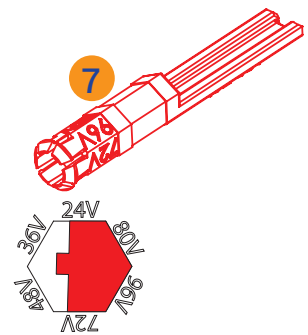
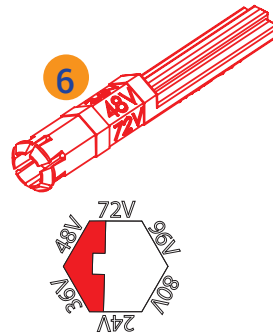
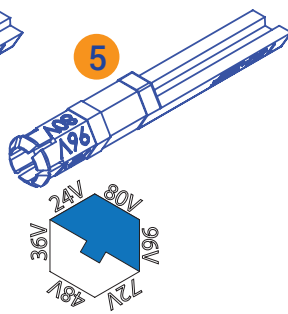
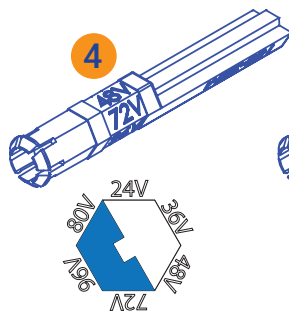
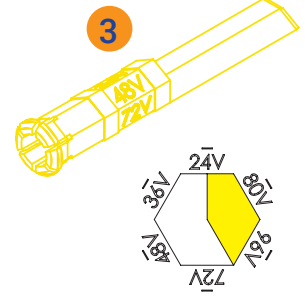
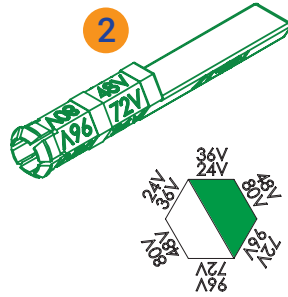
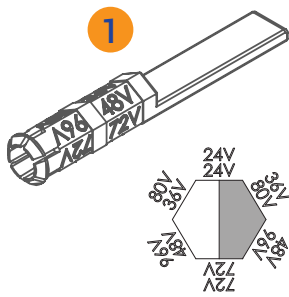
Cartridges		
Position	Description	Part Number
1	IBC 320 4 Auxiliary Contact Holder	IBC320-HOLDER-4AUX
2	IBC 320 Air Tube Contact Holder	IBC320-HOLDER-AIR
3	IBC 320 10 AUX Contact Holder	IBC320-HOLDER-10AUX
4	IBC 320 4 AUX Supplemental Contact Holder	IBC320-SUPPHOLDER-4AUX
5	IBC 320 Air Tube Supplemental Contact Holder	IBC320-SUPPHOLDER-AIR
6	IBC 320 10 Auxiliary Supplemental Contact Holder	IBC320-SUPPHOLDER-10AUX
7	IBC 320 Temperature Sensing Kit for 4 AUX with Crimps	IBC320-SENSE-KIT-4AUX
8	IBC 320 Temperature Sensing Kit for Air Tube	IBC320-SENSE-KIT-AIR
9	IBC 320 Temperature Sensing Kit for 10 AUX with Crimps	IBC320-SENSE-KIT-10AUX

Industrial Battery Connector - IBC 320 Build Your Own - Contacts



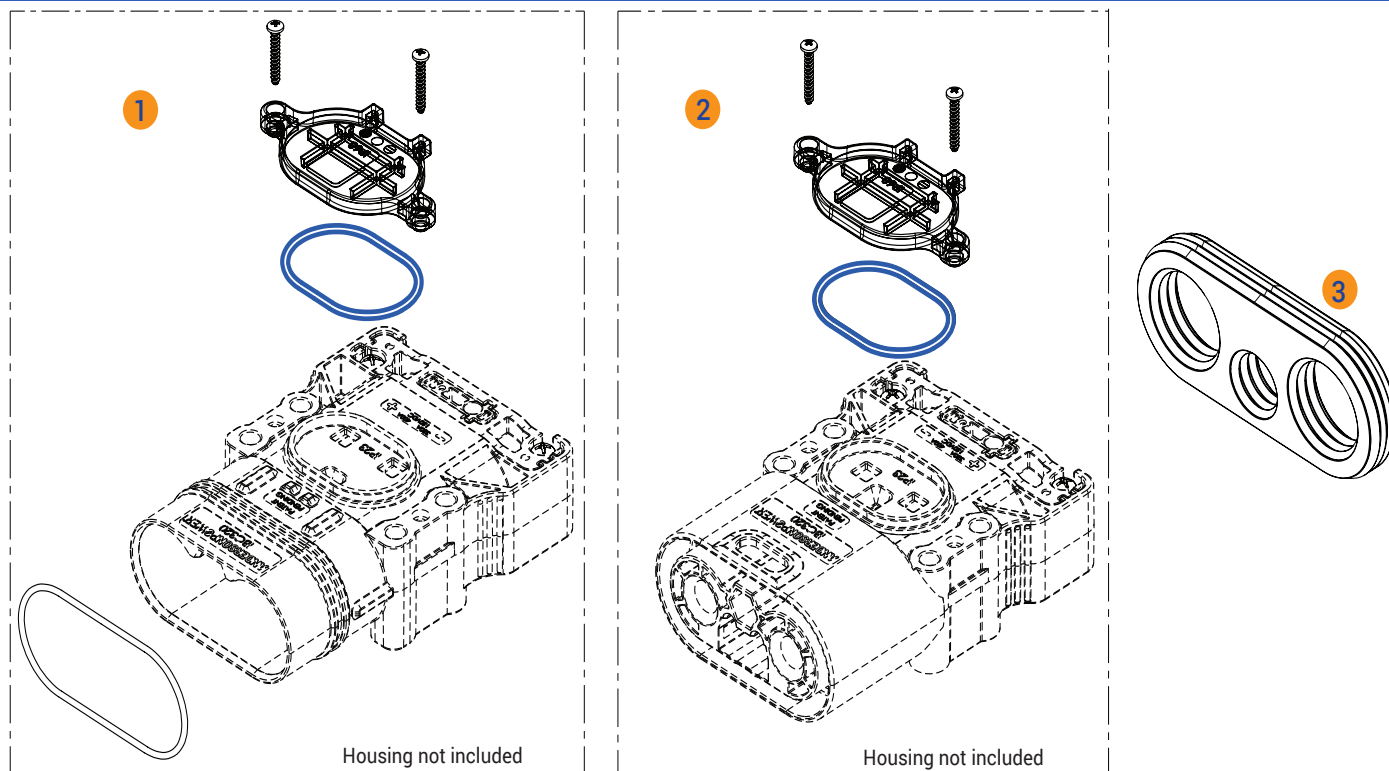
Contacts		
Position	Description	Part Number
1	Power Socket Contact - 120mm ² (4/0)	320-1104
	Power Socket Contact - 95mm ² (3/0 to 4/0)	320-1195
	Power Socket Contact - 70mm ² (2/0 to 3/0)	320-1170
	Power Socket Contact - 50mm ² (1 AWG to 1/0)	320-1150
2	Power Socket Bus Bar Contact	Coming Soon
3	Power Pin Contact - 120mm ² (4/0)	320-1004
	Power Pin Contact - 95mm ² (3/0 to 4/0)	320-1095
	Power Pin Contact - 70mm ² (2/0 to 3/0)	320-1070
	Power Pin Contact - 50mm ² (1 AWG to 1/0)	320-1050
4	320 & 160 Auxiliary Signal Pins - Air and 4 AUX	320160-40P
5	320 & 160 Auxiliary Signal Sockets - Air and 4 AUX	320160-40S
6	PPMX Signal Pin - 10 AUX	4803G3
7	PPMX Signal Socket - 10 AUX	4802G3
8	IBC320 Male Air Tube	IBC320-AIRTUBE-MALE
9	IBC 320 Female Air Tube	IBC320-AIRTUBE-FEMALE

Industrial Battery Connector - IBC 320 Build Your Own - Voltage Keys



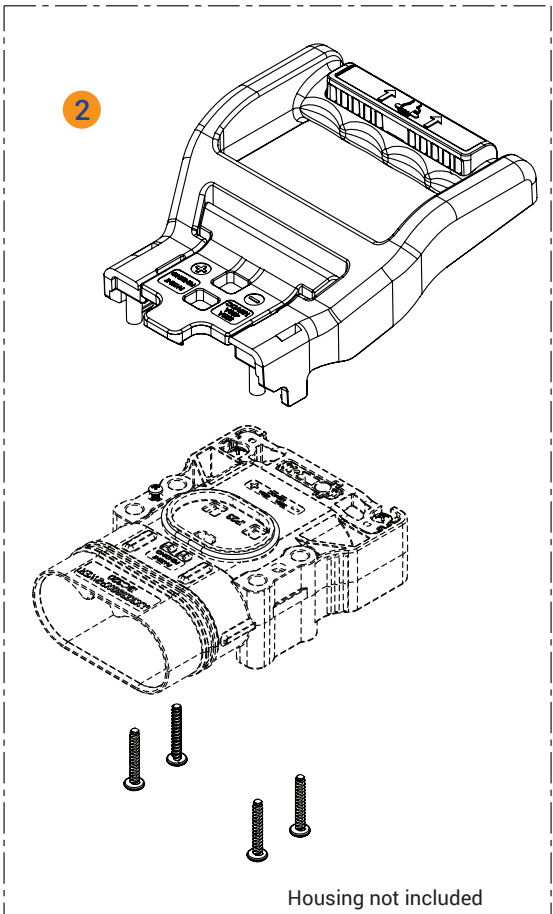
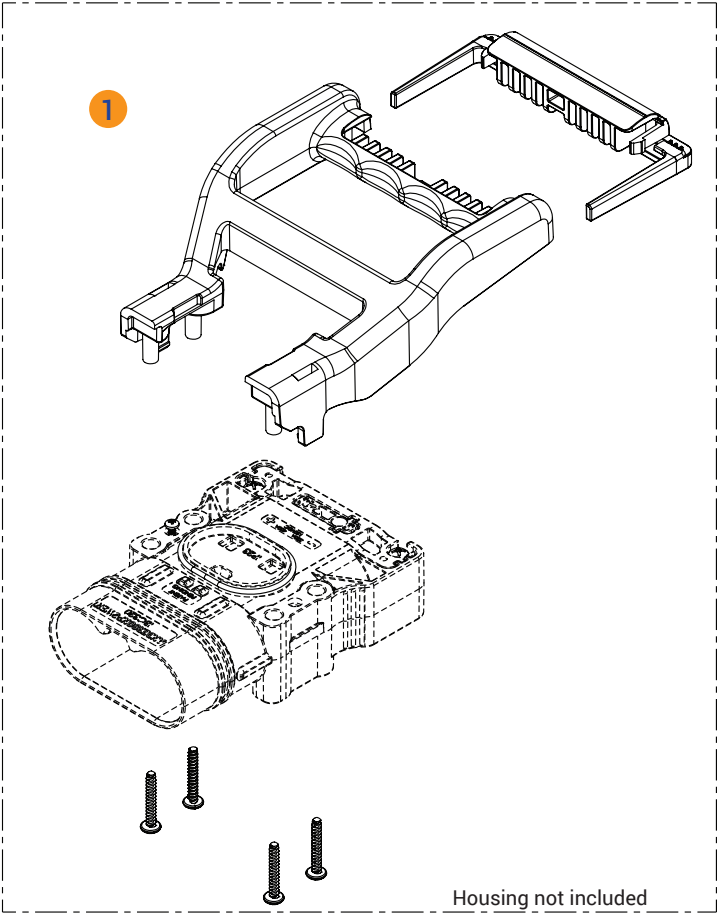
Voltage Keys		
Position	Description	Part Number
1	Grey Coding Pin - Wet	160-9
2	Green Coding Pin - Dry	160-17
3	Yellow Coding Pin - Universal	160-19
4	Blue Coding Pin (Male) - Type II Dry	160-22M
5	Blue Coding Pin (Female) - Type II Dry	160-22F
6	Red Coding Pin (Male) - Type II Wet	160-23M
7	Red Coding Pin (Female) - Type II Wet	160-23F

Industrial Battery Connector - IBC 320 Build Your Own - Sealing



Contacts					
Position	Description				Part Number
1	Plug Sealing Kit with O-rings and Hardware				IBC320-PLUGSEAL-KIT
2	Receptacle Sealing Kit with O-rings and Hardware				IBC320-RECSEAL-KIT
3	Power Wire Diameter Range (mm²)	Power Wire Diameter Range (in²)	Signal Cable Diameter Range (mm²)	Signal Cable Diameter Range (in²)	
	11.50 - 12.50	.453 - .492	8.50 - 9.50	.335 - .374	IBC320-115-85
			9.50 - 10.50	.374 - .413	IBC320-115-95
			10.50 - 11.50	.413 - .453	IBC320-115-105
					IBC320-115-NS
	13.50 - 14.50	.531 - .571	8.50 - 9.50	.335 - .374	IBC320-135-85
			9.50 - 10.50	.374 - .413	IBC320-135-95
			10.50 - 11.50	.413 - .453	IBC320-135-105
					IBC320-135-NS
	15.50 - 16.50	.641 - .650	8.50 - 9.50	.335 - .374	IBC320-155-85
			9.50 - 10.50	.374 - .413	IBC320-155-95
			10.50 - 11.50	.413 - .453	IBC320-155-105
					IBC320-155-NS
	17.00 - 18.00	.669 - .709	8.50 - 9.50	.335 - .374	IBC320-170-85
			9.50 - 10.50	.374 - .413	IBC320-170-95
			10.50 - 11.50	.413 - .453	IBC320-170-105
					IBC320-170-NS

Industrial Battery Connector - IBC 320 Build Your Own - Handles



Handles		
Position	Description	Part Number
1	IBC 320 Latching Handle Kit with Hardware	IBC320-HANDLE-LATCH-KIT
2	IBC 320 Non-Latching Handle Kit with Hardware	IBC320-HANDLE-KIT

All Data Subject to Change Without Notice

DS-IBC320 REV1 2025-0082 **Your Best Connection™**

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