

# PLUG IN CONNECTOR(CSC-PI4) - TECHNICAL SPECIFICATION







ISO-9001:2015 ISO-14000:2015 ISO-45000:2018

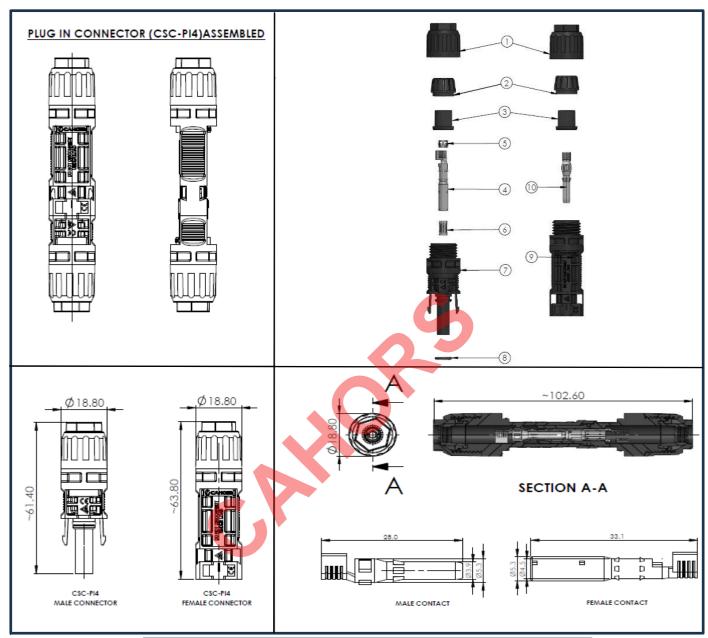




Connector Design  Rated Voltage  Rated Current @ 85°C ambient temperature  SoA (6 mm²), 40A (4 mm²), SoA (6 mm²)  Rated Impulse Voltage  Protection/Safety Class  II  Overvoltage category/ pollution degree  CAT III/2  Flame Class  UL94-V0  Protection Degree  IR65/68(1.5mtr/60min)  Ambient Temperature Range  Upper Limiting Temperature of conductor  Contact Resistance of connectors  Type of Conductor  Flexible  Number of poles  I Pole  Rewirable  Non-Rewirable Connector  Insertion and withdrawal force  Contact material  Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020 EN 62852:2015 + Amd.1:2020 Conduct OD range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  Testing Requirement apart from routine test  Termination and connection  Crimped connection according to IEC 60352-2	DADAMETERS	
Rated Voltage Rated Current @ 85°C ambient temperature SoA (2.5 mm²), 40A (4 mm²), SoA (6 mm²) Rated Impulse Voltage 16kV Protection/Safety Class II Overvoltage category/ pollution degree CAT III/2 Flame Class U194-V0 Protection Degree IP65/68(1.5mtr/60min) Ambient Temperature Range 105°C Contact Resistance of connectors Contact Resistance of connectors Type of Conductor Flexible Number of poles Rewirable Non-Rewirable Connector Insertion and withdrawal force SoN Max. (Insertion) 250N Min. (Withdrawal) Contact material Insulation material Applicable standard IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020 Sulphur dioxide (SO2) resistance Comply Cable & Connector OD Range compatible Festing Requirement apart from routine test  Pool A (Min.) & Ø2.80 mm IP & Dielectric Strength according to the DC cable to be used.	PARAMETERS	SPECIFICATIONS
Rated Current @ 85°C ambient temperature       25A (2.5 mm²), 40A (4 mm²), 50A (6 mm²)         Rated Impulse Voltage       16kV         Protection/Safety Class       II         Overvoltage category/ pollution degree       CAT III/2         Flame Class       UL94-V0         Protection Degree       IP65/68(1.5mtr/60min)         Ambient Temperature Range       - 40°C to + 85°C         Upper Limiting Temperature of conductor       105°C         Contact Resistance of connectors       ≤0.30mΩ         Type of Conductor       Flexible         Number of poles       1 Pole         Rewirable       Non-Rewirable Connector         Insertion and withdrawal force       50N Max. (Insertion)         250N Min. (Withdrawal)       Copper Tin plated         Insulation material       mPPE (Modified Polyphenylene Ether)         Applicable standard       IEC 62852:2014 + Amd.1:2020         EN 62852:2015 + Amd.1:2020       EN 62852:2015 + Amd.1:2020         Sulphur dioxide (SO2) resistance       Comply         RoHS Compliance & Halogen Free       Comply         Cable & Connector OD Range compatible       Ø4.80 (Min.) & Ø6.40 (Max.)         Conductor OD range compatible       Ø1.80 mm (Min.) & Ø2.80 mm         Testing Requirement apart from routine test       IP & Dielectric	Connector Design	Snap-in type, NEC Code Compliant
temperature  Rated Impulse Voltage  Protection/Safety Class  UI  Overvoltage category/ pollution degree  CAT III/2  Flame Class  Protection Degree  IP65/68(1.5mtr/60min)  Ambient Temperature Range  Upper Limiting Temperature of conductor  Contact Resistance of connectors  Type of Conductor  Number of poles  Rewirable  Insertion and withdrawal force  Contact material  Insulation material  Applicable standard  EC 62852:2014 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Conductor OD range compatible  Testing Requirement apart from routine test  III  SAT III/2  CAT III/2  III  CAT III/2  LE4 40° C to + 85° C  Up9er Con + 85° C  Up9er Con + 85° C  Upper Limiting Temperature of conductor  105° C  ≤ 0.30mΩ  Flexible  Non-Rewirable Connector  SON Max. (Insertion) 250N Min. (Withdrawal)  Copper Tin plated  mPPE (Modified Polyphenylene Ether)  IEC 62852:2014 + Amd.1:2020  EN 62852:2015 +	-	
Rated Impulse Voltage Protection/Safety Class  Urevoltage category/ pollution degree Flame Class  Urey4-V0 Protection Degree IP65/68(1.5mtr/60min)  Ambient Temperature Range Ip65/68(1.5mtr/60min)  Ambient Temperature of conductor  Up94-V0 Upper Limiting Temperature of conductor  Contact Resistance of connectors  Ip65/68(1.5mtr/60min)  Ip65/	_	
Protection/Safety Class  Overvoltage category/ pollution degree  CAT III/2  Flame Class  UL94-V0  Protection Degree  IP65/68(1.5mtr/60min)  Ambient Temperature Range  - 40°C to + 85°C  Upper Limiting Temperature of conductor  Contact Resistance of connectors  105°C  Contact Resistance of connectors  Type of Conductor  Insertion and withdrawal force  Rewirable  Non-Rewirable Connector  Insertion and withdrawal force  Son Max. (Insertion) 250N Min. (Withdrawal)  Contact material  Copper Tin plated  Insulation material  Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  O1.80 mm (Min.) & Ø6.40 (Max.)  Conductor OD range compatible  Testing Requirement apart from routine test  IP & Dielectric Strength according to the DC cable to be used.		
Overvoltage category/ pollution degree       CAT III/2         Flame Class       UL94-V0         Protection Degree       IP65/68(1.5mtr/60min)         Ambient Temperature Range       - 40°C to + 85°C         Upper Limiting Temperature of conductor       105°C         Contact Resistance of connectors       ≤0.30mΩ         Type of Conductor       Flexible         Number of poles       1 Pole         Rewirable       Non-Rewirable Connector         Insertion and withdrawal force       50N Max. (Insertion)         250N Min. (Withdrawal)       Copper Tin plated         Insulation material       mPPE (Modified Polyphenylene Ether)         Applicable standard       IEC 62852:2014 + Amd.1:2020         EN 62852:2014 + Amd.1:2020       EN 62852:2015 + Amd.1:2020         Sulphur dioxide (SO2) resistance       Comply         RoHS Compliance & Halogen Free       Comply         Cable & Connector OD Range compatible       Ø4.80 (Min.) & Ø6.40 (Max.)         Conductor OD range compatible       Ø1.80 mm (Min.) & Ø2.80 mm         Testing Requirement apart from routine test       IP & Dielectric Strength according to the DC cable to be used.	<u> </u>	
Flame Class  Protection Degree  IP65/68(1.5mtr/60min)  Ambient Temperature Range  - 40°C to + 85°C  Upper Limiting Temperature of conductor  Contact Resistance of connectors  Ipelication and withdrawal force  Rewirable  Insertion and withdrawal force  Contact material  Copper Tin plated  Insulation material  Applicable standard  IEC 62852:2014 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Romply  Conductor OD Range compatible  Applicable to be used.	· · · · · · · · · · · · · · · · · · ·	
Protection Degree       IP65/68(1.5mtr/60min)         Ambient Temperature Range       - 40°C to + 85°C         Upper Limiting Temperature of conductor       105°C         Contact Resistance of connectors       ≤0.30mΩ         Type of Conductor       Flexible         Number of poles       1 Pole         Rewirable       Non-Rewirable Connector         Insertion and withdrawal force       50N Max. (Insertion)         250N Min. (Withdrawal)       Copper Tin plated         Insulation material       mPPE (Modified Polyphenylene Ether)         Applicable standard       IEC 62852:2014 + Amd.1:2020         Sulphur dioxide (SO2) resistance       Comply         RoHS Compliance & Halogen Free       Comply         Cable & Connector OD Range compatible       Ø4.80 (Min.) & Ø6.40 (Max.)         Conductor OD range compatible       Ø1.80 mm (Min.) & Ø2.80 mm         Testing Requirement apart from routine test       IP & Dielectric Strength according to the DC cable to be used.		
Ambient Temperature Range       - 40°C to + 85°C         Upper Limiting Temperature of conductor       105°C         Contact Resistance of connectors       ≤0.30mΩ         Type of Conductor       Flexible         Number of poles       1 Pole         Rewirable       Non-Rewirable Connector         Insertion and withdrawal force       250N Min. (Withdrawal)         Contact material       Copper Tin plated         Insulation material       mPPE (Modified Polyphenylene Ether)         Applicable standard       IEC 62852:2014 + Amd.1:2020         Sulphur dioxide (SO2) resistance       Comply         RoHS Compliance & Halogen Free       Comply         Cable & Connector OD Range compatible       Ø4.80 (Min.) & Ø6.40 (Max.)         Conductor OD range compatible       Ø1.80 mm (Min.) & Ø2.80 mm         Testing Requirement apart from routine test       IP & Dielectric Strength according to the DC cable to be used.	Flame Class	UL94-V0
Upper Limiting Temperature of conductor  Contact Resistance of connectors  ≤0.30mΩ  Type of Conductor  Number of poles  Rewirable  Non-Rewirable Connector  Insertion and withdrawal force  Son Max. (Insertion) 250N Min. (Withdrawal)  Contact material  Copper Tin plated  Insulation material  MPPE (Modified Polyphenylene Ether)  Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  DC cable to be used.	Protection Degree	IP65/68(1.5mtr/60min)
Contact Resistance of connectors       ≤0.30mΩ         Type of Conductor       Flexible         Number of poles       1 Pole         Rewirable       Non-Rewirable Connector         Insertion and withdrawal force       50N Max. (Insertion)         250N Min. (Withdrawal)       Contact material         Contact material       mPPE (Modified Polyphenylene Ether)         Applicable standard       IEC 62852:2014 + Amd.1:2020         EN 62852:2015 + Amd.1:2020       EN 62852:2015 + Amd.1:2020         Sulphur dioxide (SO2) resistance       Comply         Cohes Conpliance & Halogen Free       Comply         Cable & Connector OD Range compatible       Ø4.80 (Min.) & Ø6.40 (Max.)         Conductor OD range compatible       Ø1.80 mm (Min.) & Ø2.80 mm         Testing Requirement apart from routine test       IP & Dielectric Strength according to the DC cable to be used.	Ambient Temperature Range	- 40°C to + 85°C
Type of Conductor  Number of poles  Rewirable  Non-Rewirable Connector  Insertion and withdrawal force  Copper Tin plated  Insulation material  Applicable standard  Sulphur dioxide (SO2) resistance  RoHS Compliance & Halogen Free  Cable & Connector OD Range compatible  Testing Requirement apart from routine test  Testing Requirement apart from routine test  Non-Rewirable  Non-Re	Upper Limiting Temperature of conductor	105°C
Number of poles  Rewirable  Non-Rewirable Connector  Insertion and withdrawal force  Contact material  Insulation material  Applicable standard  Sulphur dioxide (SO2) resistance  RoHS Compliance & Halogen Free  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  Insulation Max. (Insertion)  Sulphur (Withdrawal)  Copper Tin plated  MPPE (Modified Polyphenylene Ether)  IEC 62852:2014 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Comply  Comply  Comply  Comply  Comply  Comply  Comply  Conductor OD range compatible  Median Min.) & Ø6.40 (Max.)  Median Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.	Contact Resistance of connectors	≤0.30mΩ
Rewirable Insertion and withdrawal force  50N Max. (Insertion) 250N Min. (Withdrawal)  Contact material Copper Tin plated Insulation material MPPE (Modified Polyphenylene Ether)  Applicable standard IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance Comply  RoHS Compliance & Halogen Free Comply  Cable & Connector OD Range compatible Onductor OD range compatible Testing Requirement apart from routine test  Non-Rewirable Connector  50N Max. (Insertion) 250N Min. (Withdrawal)  IEC 62852:2014 + Amd.1:2020  EN 62852:2014 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Insertion Provided Ether)  IP & Dielectric Strength according to the DC cable to be used.	Type of Conductor	Flexible
Insertion and withdrawal force  50N Max. (Insertion) 250N Min. (Withdrawal)  Copper Tin plated  Insulation material  MPPE (Modified Polyphenylene Ether)  Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  DC cable to be used.	Number of poles	1 Pole
Contact material  Copper Tin plated  Insulation material  MPPE (Modified Polyphenylene Ether)  Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  Z50N Min. (Withdrawal)  Copper Tin plated  mPPE (Modified Polyphenylene Ether)  IEC 62852:2014 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  Comply  Cable & Connector OD Range compatible  Ø4.80 (Min.) & Ø6.40 (Max.)  Testing Requirement apart from routine test  DC cable to be used.	Rewirable	Non-Rewirable Connector
Insulation material mPPE (Modified Polyphenylene Ether)  Applicable standard IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance Comply  RoHS Compliance & Halogen Free Comply  Cable & Connector OD Range compatible Ø4.80 (Min.) & Ø6.40 (Max.)  Conductor OD range compatible Ø1.80 mm (Min.) & Ø2.80 mm  Testing Requirement apart from routine test DC cable to be used.	Insertion and withdrawal force	
Applicable standard  IEC 62852:2014 + Amd.1:2020 EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  IEC 62852:2014 + Amd.1:2020  Comply  Comply  Min.) & Ø6.40 (Max.)  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.	Contact material	Copper Tin plated
EN 62852:2015 + Amd.1:2020  Sulphur dioxide (SO2) resistance  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  EN 62852:2015 + Amd.1:2020  Comply  Ø4.80 (Min.) & Ø6.40 (Max.)  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.	Insulation material	mPPE (Modified Polyphenylene Ether)
Sulphur dioxide (SO2) resistance  Comply  RoHS Compliance & Halogen Free  Comply  Cable & Connector OD Range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  Comply  Ø4.80 (Min.) & Ø6.40 (Max.)  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.	Applicable standard	
RoHS Compliance & Halogen Free  Cable & Connector OD Range compatible  Conductor OD range compatible  Conductor OD range compatible  Testing Requirement apart from routine test  Comply  Ø4.80 (Min.) & Ø6.40 (Max.)  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.	Sulphur diavida (SO2) resistance	
Cable & Connector OD Range compatible  Ø4.80 (Min.) & Ø6.40 (Max.)  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.		
Conductor OD range compatible  Ø1.80 mm (Min.) & Ø2.80 mm  IP & Dielectric Strength according to the DC cable to be used.		1 /
Testing Requirement apart from routine test  IP & Dielectric Strength according to the DC cable to be used.		, , ,
DC cable to be used.	Conductor OD range compatible	
Termination and connection Crimped connection according to IEC 60352-2	Testing Requirement apart from routine test	_
	Termination and connection	Crimped connection according to IEC 60352-2



# PLUG IN CONNECTOR(CSC-PI4) - GENERAL ARRANGMENT DRAWING



10	MALE CONTACT	COPPER	1
9	MALE INSULATOR- PLUG IN	mPPE	1
8	O-RING	SILICONE RUBBER	1
7	FEMALE INSULATOR- PLUG IN	mPPE	1
6	CAGE CONTACT	COPPER ALLOY	1
5	SS GRIPPER	SS	1
4	FEMALE CONTACT	COPPER	1
3	GROMMET	SILICONE RUBBER	2
2	COLLET	PA-6	2
1	CAP	mPPE	2
ITEM NO.	PART DECRIPTION	MATERIAL	QTY.

# **BILL OF MATERIALS**



## INSTALLATION INSTRUCTION SHEET (IN FIELD)- PLUG IN CONNECTOR (CSC-PI4)

## 1 SET PRODUCT



- MALE INSULATOR ASSEMBLY (MALE INSULATOR+ COLLET+ 1. GROMMET+ CAP)
- FEMALE INSULATOR ASSEMBLY (FEMALE INSULATOR+ COLLET+ GROMMET+ CAP+ O RING)
- FEMALE CONTACT ASSEMBLY (FEMALE CONTACT+ CAGE 3. CONTACT+ SS GRIPPER)
- MALE CONTACT

### STEP-1





- CABLE OF SIZE OF 2.5/4/6 SQ.MM AS PER REQUIREMENT 1.
- CABLE OD COMPATABLE: Ø4.50 MM TO Ø 6.5 MM 2.
- STRIP 7-8 MM LENGTH OF CABLE BY A STRIPPING TOOL.

CAHORS RECOMMENDED STRIPPING TOOL (19P2100018)

USE THE STANDARD STRIPPING TOOL FOR STRIPPING 4

#### STEP-2





- SELECT THE JAW SIZE OF CRIMPING TOOL AS PER CABLE SIZE. 1.
- 2. PLACE THE BARREL OF COPPER CONTACT IN THE JAW OF TOOL.
- 3. HOLD THE CONTACT IN THE CRIMPING TOOL
- CAHORS RECOMMENDED CRIMPING TOOL (19P2100017)

#### STEP-3





- INSERT THE CABLE INTO CONTACT.
- PRESS THE CRIMPING TOOL UNTIL IT RELEASES ITSELF.

## STEP-4



- INSERT THE CRIMPED CONTACTS INTO THE MALE/ FEMALE 1. INSULATORS OF PLUG IN CONNECTOR.
- 2. CONFIRM THE LOCKING OF MALE & FEMALE HOUSINGS AND COPPER CONTACT BY HEARING THE "CLICK" SOUND.

## STEP-5





CLICK SOUND

- TIGHTEN THE CAP BY THE SPANNER WITH A TORQUE 1 0.8-1.2 NM
- INSERT THE MALE CONNECTOR INTO FEMALE CONNECTOR.
- PRESS THE TWO CONNECTORS BY INSERTION LOCKING & CONFIRM A ROBUST CONNECTION BY HEARING A "CLICK" SOUND

#### NOTES: -

- CONNECTOR IS SUITABLE WITH 2.5, 4 & 6 SQ.MM SOLAR CABLES & CABLES SHOULD BE COMPLY WITH IEC 62930.
  FOR FASTENING/UNFASTENING, RECOMMENDED CAHORS SPANNER PART CODE 19D0000484.
  NEVER CONNECT OR DISCONNECT THIS CONNECTOR UNDER LOAD.
  METAL CONTACTS SHOULD BE CRIMPED AS PER IEC 60352-2.
  TO COMPLY THE TESTED QUALITY, IT'S INCESSARY TO USE RECOMMONDED TOOLS.
  UNPLUGGED CONNECTORS MUST BE PROTECTED AGAINST INGRESS OF DIRT AND MOISTURE. BEFORE PLUGGING TOGETHER, MAKE SURE THAT THE MATING AREA IS FREE OF ANY DIRT.
- FOR ADDITIONAL INFORMATION PLEASE REFER TECHNICAL SPECS OR CONTACT TRNASFIX INDIA.