Charging Solutions

SELECTOR GUIDE

APPLICATIONS:

- On-vehicle charging inlets
- Grid-to-vehicle charging
- Charging infrastructure-to-vehicle

			
Application	Cable assemblies for integration into charging stations	Charging between vehicle and charge station	Grid to vehicle charging
Description	CHARGE PIGTAILS	CHARGE MODE 3 JUMPER CABLE	CHARGE MODE 2 CABLE
Mating cycles	10 000	10 000 / 14 000	10 000
# of phases	1 or 3	1 & 3	1
Amperage	16 - 40 A (AC)	20 - 32 A (AC)	6 - 14 A (AC)
Voltage	120 - 480 V (AC)	240 - 400 V (AC)	240 V (AC)
Wire selections	–	–	–
Cable length	5 - 7.6 m	4 - 7 m	5 m
See Page	**66-67**	**68-69**	**70-71**

Plug-in hybrid and electric vehicle AC charge inlet	Plug-in hybrid and electric vehicle AC charge inlet	Charging interface for slow AC and fast DC charging	Charging interface for slow AC and fast DC charging
CHARGE INLET TYPE I	CHARGE INLET TYPE II	COMBO 1	COMBO 2
10 000	10 000	10 000	10 000
1	1 or 3	1	1 or 3
15 - 32 A (AC)	16 - 63 A (AC)	32 A (AC) 125 A (DC)	20 A (AC) 125 A (DC)
120 V (AC Level 1) 240 V (AC Level 2)	400 V (AC)	250 V (AC) 600 V (DC)	480 V (AC) 600 V (DC)
2 - 5 mm²	2.5 - 16 mm²	6 mm² (AC) 35 mm² (DC)	4 mm² (AC) 35 mm² (DC)
–	–	–	–
72-73	74-75	76-77	78-79

CHARGE PIGTAILS

BENEFITS

- Superior durability and proven in automotive mass production
- Vehicle to charging station connection
- UL, CE, CQC marking/certification

FEATURES

- SAE J1772/IEC62196 Type I, IEC62196 Type II, and GB/T 20234 standards
- Wiring crimps sealed from environment
- Different design options

APPLICATIONS

Grid-to-vehicle
Infrastructure to electric vehicle charging

AVAILABLE CONFIGURATIONS

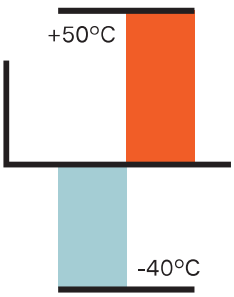
Design	Plastic handle or rubber over mold
Outlet Standard	UL, CE, CQC

TECHNICAL CHARACTERISTICS

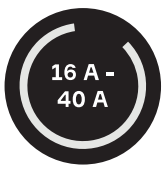
Mating Cycles	10 000

PERFORMANCE

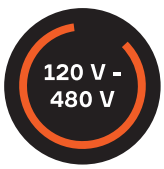
TEMP RANGE



MAX CURRENT AT 85°C



MAX DC VOLTAGE



VIBRATION LEVEL

SEALING CLASS

Individual wiring crimps

Part number	Type (veh/wall)	Design	Current	# Phase	Cable Length	Cable Section	Certification
33248422	Type I/SAE J1772	Plastic Handle	18A	1-phase	7.0 / 23	3G AWG14 + 0.8	UL
33248425	Type I/SAE J1772	Plastic Handle	25A	1-phase	7.6 / 25	3G AWG12 + 0.8	UL
35078184	Type I/SAE J1772	Plastic Handle	40A	1-phase	7.6 / 25	3G AWG10 + 0.8	UL
33155748	Type I	Rubber Over Mold	20A	1-phase	5.0 / 16.40	3G2.5 + 0.5	CE
33155747	Type II	Rubber Over Mold	20A	1-phase	5.0 / 16.40	3G2.5 + 0.5	CE
33155746	Type II	Rubber Over Mold	20A	3-phase	5.0 / 16.40	5G6 + 0.5	CE
33155745	Type II	Rubber Over Mold	32A	3-phase	5.0 / 16.40	5G6 + 0.5	CE
33502596	Type II	Plastic Handle	16A	1-phase	6.5 / 21.32	3G2.5 + 0.75	CE
33366532	GBT	Plastic Handle	16A	1-phase	7.5 / 24.6	3G2.5 + 0.5	CQC
33366674	GBT	Plastic Handle	32A	1-phase	7.5 / 24.6	3G2.5 + 0.75	CQC

For more specific information, please contact your Aptiv representative.

COMPATIBLE WITH

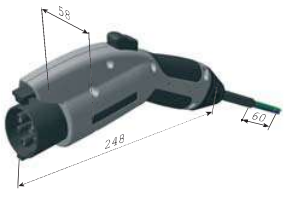
Type I/SAE J1772 Inlet

IEC62196 Type II Inlet

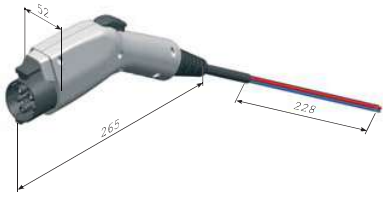
GBT Inlet*

*For more information, please contact your Aptiv representative

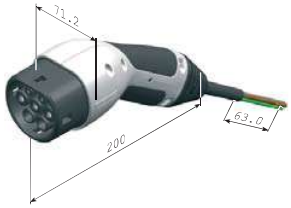
DIMENSION MEASUREMENT SAMPLE



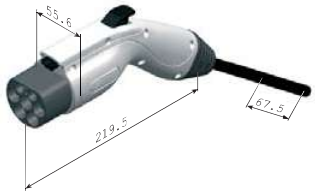
Type I
Rubber Over Mold



Type I/SAE J1772
Plastic Handle



Type II
Rubber Over Mold



GBT
Plastic Handle

APTIV

CHARGE MODE 3 JUMPERS CABLE

BENEFITS

- Superior durability and proven in automotive mass production
- Wiring crimps sealed from environment
- CE and CQC marking/certification

FEATURES

- Vehicle connector according to IEC62196-2-1/IEC62196-2-2 and GB/T 20234
- Superior durability: 14,000 cycles (while IEC standard only requires 10,000 cycles)
- Low mating/unmating forces: Initial < 40N, Mating forces < 80N guaranteed until 14,000 cycles

APPLICATIONS

Cable assemblies for plugging from charging stations to vehicle

AVAILABLE CONFIGURATIONS

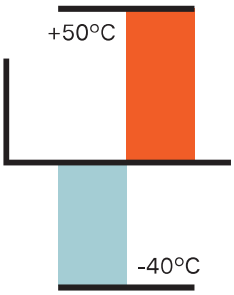
Design	Plastic handle
Outlet Standard	CE, CQC
Configurations	T2-T2, T1-T2, T1-T3, GBT-GBT

TECHNICAL CHARACTERISTICS

Mating Cycles	14 000 (CE Products), 10 000 (CQC Products)

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C

MAX DC VOLTAGE

VIBRATION LEVEL

SEALING CLASS

Individual wiring crimps

Part number	Type (veh/wall)	Current	# Phase	Cable length	Cable section	Certification
33358146	Jumper T2 - T2	20A	3-phase	6.5 / 21.32	5G4 + 0.75	CE
35137656	Jumper T2 - T2	32A	3-phase	4.0 / 13.12	5G6 + 0.75	CE
35141693	Jumper T2 - T2	32A	3-phase	6.5 / 21.32	5G6 + 0.75	CE
35341995	Jumper T2 - T2	32A	1-phase	5.0 / 16.40	3G6 + 0.75	CE
33401184	Jumper T1 - T2	20A	1-phase	6.0 / 19.68	3G2.5 + 0.75	CE
33403378	Jumper T1 - T2	32A	1-phase	6.0 / 19.68	3G6 + 0.75	CE
33295948	Jumper GBT - GBT	16A	1-phase	5.0 / 16.40	3G2.5 + 0.5	CQC
33295463	Jumper GBT - GBT	32A	1-phase	7.0 / 22.96	3G6 + 0.5	CQC

COMPATIBLE WITH

Type I/SAE J1772 Inlet

IEC62196 Type II Inlet

GBT Inlet*

*For more information, please contact your Aptiv representative

DIMENSION MEASUREMENT SAMPLE

33358146

APTIV

CHARGE MODE 2 CABLE

BENEFITS

- Superior durability and proven in automotive mass production
- Dual-thermo sensors in the grid plug provide superior overheating protection
- Grid cord as required by country of use

FEATURES

- EVSE provides restart in the event of power grid fault
- Product according to the new IEC62752 standard including Type B RCD and residential DC current detection
- Superior control box water sealing protection: IP67 (higher than the standard)

APPLICATIONS

Portable Electric Vehicle Supply Equipment (EVSE) for grid-to-vehicle charging

AVAILABLE CONFIGURATIONS

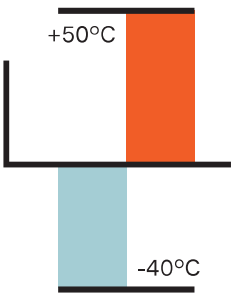
Design	Rubber overmold
Inlet Standard	IEC62196 Type II

TECHNICAL CHARACTERISTICS

Mating Cycles	10 000

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C

MAX DC VOLTAGE

VIBRATION LEVEL

SEALING CLASS

EVSE Box

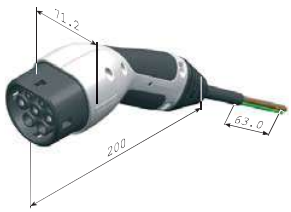
Part number	Type (veh/wall)	Current	# Phase	Cable length	Countries*	Certification
35054780	Type 2	10A	1-phase	5.0 / 16.40	Europe (Germany, France...)	CE
35086913	Type 2	8A	1-phase	5.0 / 16.41	Finland	CE
35054781	Type 2	10A	1-phase	5.0 / 16.42	UK, Ireland, Cyprus, Malta	CE
35058252	Type 2	6A	1-phase	5.0 / 16.43	Denmark	CE
35054782	Type 2	8A	1-phase	5.0 / 16.44	Switzerland	CE
35054784	Type 2	10A	1-phase	5.0 / 16.45	Norway	CE
35054788	Type 2	8A	1-phase	5.0 / 16.46	Italy	CE
35268956	Type 2	14A	1-phase	5.0 / 16.47	Europe - Grid plug CEE 16/3	CE

* Other countries outside Europe also available.

COMPATIBLE WITH

IEC62196 Type II Inlet

DIMENSION MEASUREMENT SAMPLE



Type II
Rubber Over Mold

CHARGE INLET TYPE I

BENEFITS

- Interface complies with SAE J1772 and IEC62196 Type I standard
- Panel mounts to vehicle
- Protective grommet/wire dress mounts to inlet

FEATURES

- Supports multiple levels of AC currents: Level 1 (15A, 120V) and Level 2 (32A, 240V)
- Validation: UL recognized

APPLICATIONS

Plug-in hybrid and electric on-vehicle charge inlet (1-phase AC charging)

TECHNICAL CHARACTERISTICS

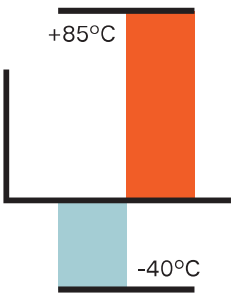
Validation	UL recognized
Mating Cycles	10 000

AVAILABLE CONFIGURATIONS

Connector Type	Vehicle inlet
Cable Exit Orientation	180°
Cable Range (mm²)	2 - 5 (AC)
Terminal Type	Round terminals
# of Terminals	AC: 3 Signal: 2
Shielding Type	Unshielded

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C

AC Level 1 (120V)
AC Level 2 (240V)

MAX DC VOLTAGE

VIBRATION LEVEL

SEALING CLASS

with cover when mated

Part number	Description	BOM
13826395	Cover opens left	1

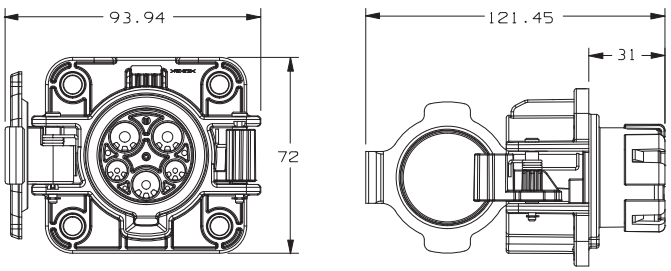
ASSOCIATED PARTS

Part Number	Description	Wire size range (AWG)	Wire section (mm²)	BOM
Terminals				
13884348	1.5 mm pin	18	0.75	2
13884350	2.8 mm pin	14	2.5	1
13884351	2.8 mm pin	10	5	
13884352	3.6 mm pin	14	2.5	2
13884353	3.6 mm pin	10	5	

Part number	Description	BOM
Grommet		
13826280	Grommet wire protection	1

Part number	Description	BOM
TPA		
13826277	TPA	1

DIMENSION MEASUREMENT SAMPLE



13826395

CHARGE INLET TYPE II

BENEFITS

- Interface complies with IEC62196
- Panel mounts to vehicle
- Integrated thermal circuit breaker to prevent abnormal temperature increase

FEATURES

- Cover provides dust protection
- Inlet designed to drain fluids when opened
- Lock actuator positioned on the top
- Available with cover opening right or left

APPLICATIONS

Plug-in hybrid and electric
on-vehicle charge inlet
(1-phase or 3-phase AC charging)

TECHNICAL CHARACTERISTICS

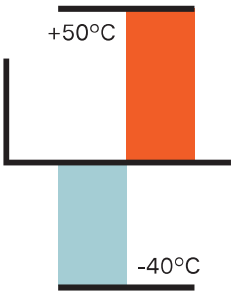
Mating Cycles	10 000

AVAILABLE CONFIGURATIONS

Connector Type	Vehicle inlet
Cable Exit Orientation	90° (left or right)
Cable Range (mm²)	2.5 - 16 (AC)
Terminal Type	Round terminals
# of Terminals	AC: 5 Signal: 2
Shielding Type	Unshielded

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C

16 A
63 A

1-phase or
3-phase

MAX DC VOLTAGE

400 V

VIBRATION LEVEL

V1

SEALING CLASS

IP55
IP44

with cover
when mated

Part number	Description	BOM
33402098 33400030	Inlet sub-assy - Inlet Type II right open cover, left wire exit Rear cover, left wire exit	1
OR		
33402097 33400076	Inlet sub-assy - Inlet Type II left open cover, right wire exit Rear cover, right wire exit	1

ASSOCIATED PARTS

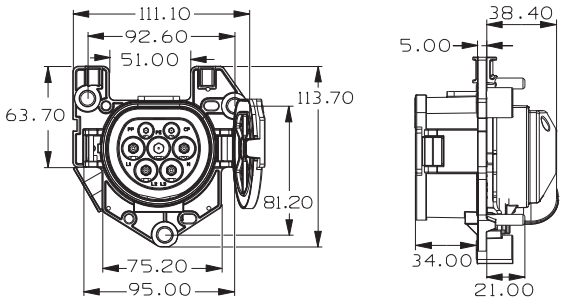
Part Number	Description	Wire section (mm²)	BOM (1-phase)	BOM (3-phase)
Terminals for 16A version (1-phase)				
33267394	Male terminal Ø 6 mm with cap Ag (N, L1)	2.5	2	-
33513981	Male terminal Ø 6 mm without cap Ni (PE)	2.5	1	-
33502256	Male terminal Ø 3 mm, length 13 mm (CP)	0.5	1	-
33502238	Male terminal Ø 3 mm, length 25 mm (PP)	0.5	1	-
Terminals for 32A version (1-phase or 3-phase)*				
33403032	Male terminal Ø 6 mm with cap Ag (N, L1, L2, L3)	6	2	4
33403033	Male terminal Ø 6 mm without cap Ag (PE)	6	1	1
33502256	Male terminal Ø 3 mm, length 13 mm (CP)	0.5	1	1
33502238	Male terminal Ø 3 mm, length 25 mm (PP)	0.5	1	1
Terminals for 63A version (1-phase or 3-phase)*				
33267396	Male terminal Ø 6 mm with cap Ag (L1, L2, L3, N)	16	2	3 or 4
33267394	Male terminal Ø 6 mm with cap Ag (N)	4	-	1 or 0
33267382	Male terminal Ø 6 mm without cap Ag (PE)	16	1	1
33502256	Male terminal Ø 3 mm, length 13 mm (CP)	0.5	1	1
33502238	Male terminal Ø 3 mm, length 25 mm (PP)	0.5	1	1

* Compulsory usage of thermo sensor set

Part number	Description	BOM
Grommet		
33401379	Grommet	1
Screw		
33514388	Screw	3

Part number	Description	BOM
TPA		
33508692	TPA	1
Thermo Sensor		
33514398	Thermo sensor set	1

DIMENSION MEASUREMENT SAMPLE



33402098

APTIV

COMBO 1 INLET

BENEFITS

- Interface complies with IEC62196
- Combined charging system for electrical vehicle
- AC/DC: slow (1-phase 32A) / fast charge (600V, 125A)

FEATURES

- Actuator located from a top position point enabling locking connector to inlet during charging
- Wire Cross Section:
  Contact Pin/Present Pin (0.5 mm²),
  PE (16 mm²), L1/N (6.0 mm²),
  DC +/- (35 mm²)

APPLICATIONS

Plug-in hybrid and electric on-vehicle charge inlet (combined 1-phase AC and DC charging)

TECHNICAL CHARACTERISTICS

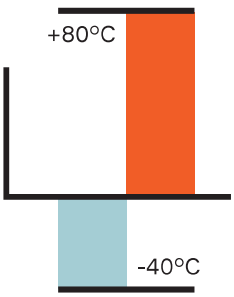
Connection/Inlet mating and unmating force	< 100 N
Mating Cycles	10 000

AVAILABLE CONFIGURATIONS

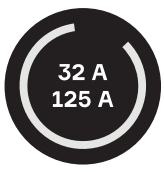
Connector Type	Vehicle Inlet
Cable Exit Orientation	180°
Cable Range (mm²)	6 (AC) 35 (DC)
Terminal Type	Round Terminals
# of Terminals	AC: 3 Signal: 2 DC: 2
Shielding Type	Unshielded

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C



1-phase AC
DC

MAX DC VOLTAGE

AC
DC

VIBRATION LEVEL

SEALING CLASS

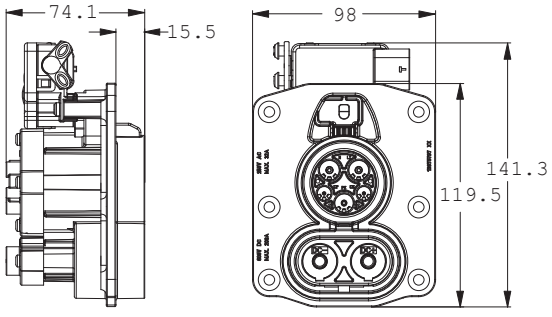
with cover
when mated

Part number	Description	BOM
33133127	Main Housing	1

ASSOCIATED PARTS

Part number	Description	BOM
Terminals		
15522876	Ø 3.6 mm / 6 mm² cable cross section (AC power N, L1, L2 with protection cap)	2
15522875	Ø 2.8 mm / 16 mm² cable cross section (Ground)	1
13884348	Ø 1.5 mm (Pilot)	2
15522877	Ø 8.0 mm / 35 mm² (DC power)	2
Components and Accesories		
33133129	AC back cover	1
33133126	AC block seal cable (6 mm² cable)	1
33133116	AC block seal terminal	1
33133128	DC back cover	1
33133115	DC block seal cable	1
33133108	DC retainer	1
33103899	DC O-ring	2
33133132	AC retainer	1
15532546	Screw	7
Dust Caps		
33133134	Dust caps	1
Actuator and Seals		
33235151	Actuator Combo 1	1
33133105	Block seal for actuator	1

DIMENSION MEASUREMENT SAMPLE



33133127

COMBO 2 INLET

BENEFITS

- Interface complies with IEC62196
- Combined charging system for electrical vehicle
- AC/DC: slow (3-phase, 20A) / fast charge (600V, 125A)

FEATURES

- Actuator located from a top position point enabling locking connector to inlet during charging
- Wire cross section:
  Contact Pin/Present Pin (0.5 mm²),
  PE (16 mm²), L1/N (4.0 mm²),
  DC +/- (35 mm²)

APPLICATIONS

Plug-in hybrid and electric on-vehicle charge inlet (combined 3-phase AC and DC charging)

TECHNICAL CHARACTERISTICS

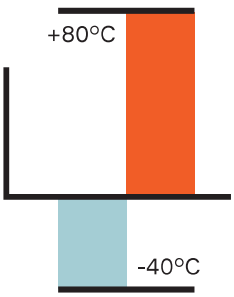
Connection/Inlet mating and unmating force	< 100 N
Mating Cycles	10 000

AVAILABLE CONFIGURATIONS

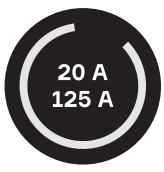
Connector Type	Vehicle Inlet
Cable Exit Orientation	180°
Cable Range (mm²)	4 (AC) 35 (DC)
Terminal Type	Round Terminals
# of Terminals	AC: 5 Signal: 2 DC: 2
Shielding Type	Unshielded

PERFORMANCE

TEMP RANGE



MAX CURRENT AT 85°C



3-phase AC
DC

MAX DC VOLTAGE

AC
DC

VIBRATION LEVEL

SEALING CLASS

with cover
when mated

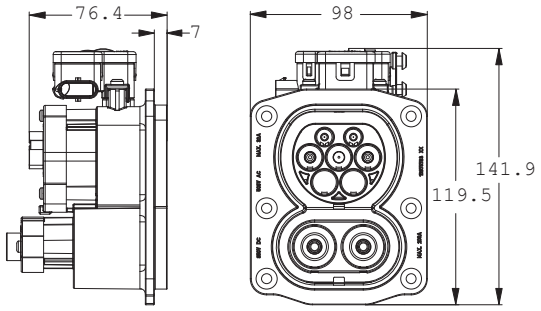
 |

Part number	Description	BOM
33265593	Main Housing	1

ASSOCIATED PARTS

Part number	Description	BOM
Terminals		
33133795	Ø 6 mm / 4 mm² cable cross section (AC power with protection cap)	2 or 4
15522870	Ø 6 mm / 16 mm² cable cross section (PE/Ground)	1
33133789	Ø 3 mm (PP/Pilot)	1
33133739	Ø 3 mm (CP/Pilot)	2
Components and Accesories		
33265597	AC back cover	1
33265958	AC block seal cable (4 mm² cable)	1
33265598	AC retainer	1
33265965	AC block seal terminal	1
33133855	DC backcover	1
33133931	DC block seal cable	1
33133859	DC retainer	1
33103899	DC O-ring	2
15532546	Screw	7
Dust Caps		
33134019	Dust caps	1
Actuator and Seals		
10808197	Actuator Combo 2	1
33133105	Block seal for actuator	1

DIMENSION MEASUREMENT SAMPLE



33265593

APTIV