

May 2019

AVNET[®] ABACUS

● CONNECTION SYSTEMS.

12 - 48V POWER PACK 1000

PRODUCT PRESENTATION

• APTIV •

Content

Why POWER PACK 1000?

Market environment and
value proposition

Portfolio Overview

Portfolio scope

Technical Overview

Design features

Part Numbers

Content

Why POWER PACK 1000?

Market environment and
value proposition

Portfolio Overview

Portfolio scope

Technical Overview

Design features

Part Numbers

The Challenge

- Meeting increasing requirements for higher currents for new 12 & 48V platforms
- Exceedingly high reliability expectations in safety and performance
- Providing space saving solutions in regards to multiple available configurations

The Solution

Presenting the Power Pack 1000

Designed specifically for 12 – 48V sealed applications, the PP1000 covers multiple configurations including:

- 1 & 2 way connectors
- Wire-to-device and inline solutions
- Straight and right angle cable exits

AVNET ABACUS

Robust features, meaningful benefits

Multiple configurations

- 1-way inline
- 2-way inline
- 2-way wire-to-device
 - Straight cable exit
 - Right angle exit

High Current design

- Carrying currents up to 145A @ 85°C
- Cable range of :
 - 8-10 mm²
 - 19-25 mm²
- Silver plated terminals

Reliability

- Safe Connections including
 - TPA features
 - CPA features
- Field proven terminal system since 2011
- High sealing protection: IP67

Content

Why POWER PACK 1000?

Market environment and
value proposition

Portfolio Overview

Portfolio scope

Technical Overview

Design features

Part Numbers

1 way inline connector



Key features & benefits

- Sealed connection system
- Silver-plated Power Pack1000 multi-contact terminal system
- Cable range: 8 mm² to 25 mm²
- One key/index
- Capable of additional indexes

Performance characteristics

Sealing protection	IP67, IP6K9K
Temperature range (up to)	-40°C to +125°C
Vibration performance (up to)	V1 Chassis Profile
Max Current	145A@85C
Max Voltage	48V



Application: High current wiring harness inline

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

2-way wire-to-device connector



Application: High current device applications and sealed pass-through panel mount system

Key features & benefits

- Sealed connection system
- Sealed panel mount pre-stages prior to fastening through self tapping screws
- Silver-plated Power Pack 1000 multi-contact terminal system
- Cable range: 8 mm² to 25 mm²

Performance characteristics

Sealing protection	IP67, IP6K9K
Temperature range (up to)	-40°C to +125°C
Vibration performance (up to)	V1 Chassis Profile
Max Current	145A@85C
Max Voltage	48V

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

2-way inline connector



Application: High current wiring harness inline

Key features & benefits

- Sealed connection system
- Silver-plated Power Pack 1000 multi-contact terminal system
- Cable range: 8 mm² to 25 mm²
- One key/index

Performance characteristics

Sealing protection	IP67, IP6K9K
Temperature range (up to)	-40°C to +125°C
Vibration performance (up to)	V1 Chassis Profile
Max Current	145A@85C
Max Voltage	48V

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

Content

Why POWER PACK 1000?

Market environment and
value proposition

Portfolio Overview

Portfolio scope

Technical Overview

Design features

Part Numbers

Power-Pack 1000 Terminal Overview

- 145 amp capability @ 85°C ambient temperature
- Silver plated
- Cable range 6 mm² – 25 mm²
- **Female terminal**
 - 2-piece terminal system
 - Inline and right angle versions
- **Male terminal**
 - mates to inline or right angle female

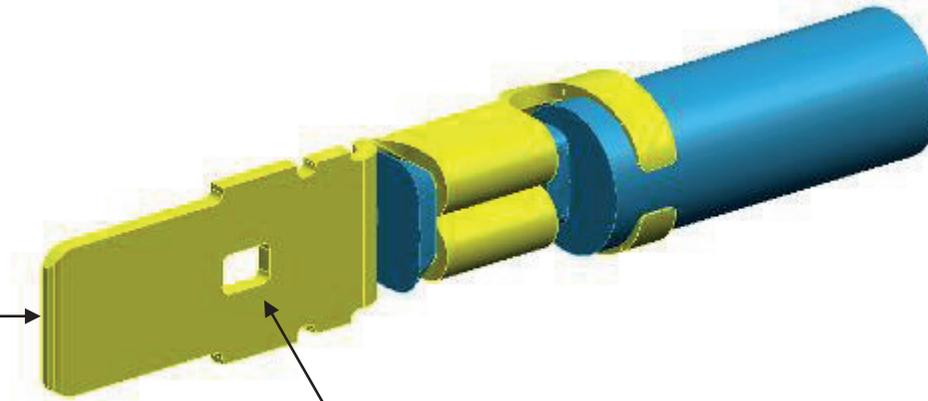


In production since Nov 2010

Power-Pack 1000 Terminal Overview

Male Terminal

Blade width: 10.5mm
Blade thickness: 1.2mm



Terminal Lock Window

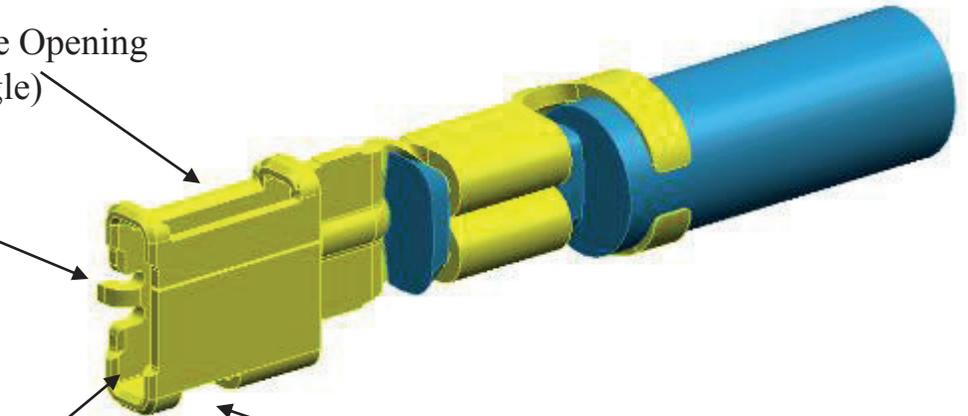
Female Base Terminal

Male Blade Opening (In-Line)

Index

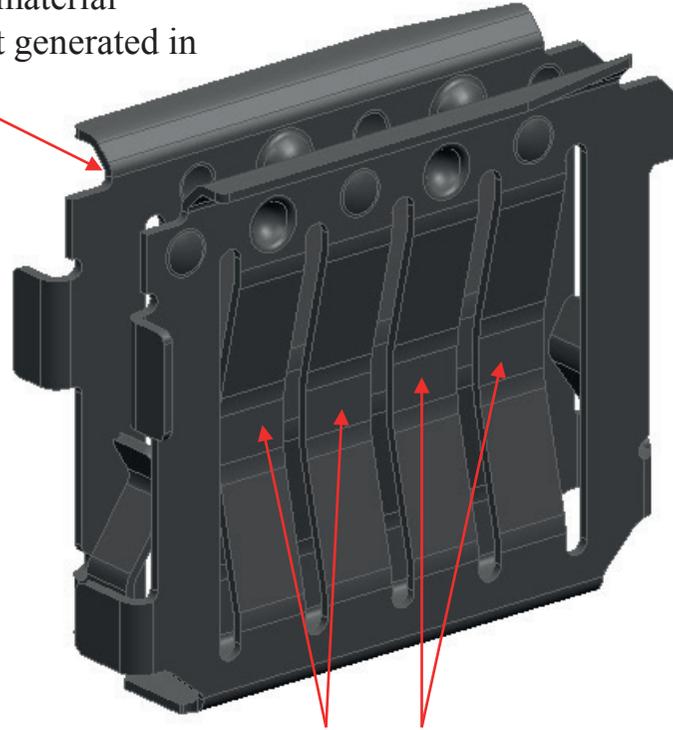
Male Blade Opening (Right Angle)

Terminal Lock Window



Power-Pack 1000 Female Terminal Design

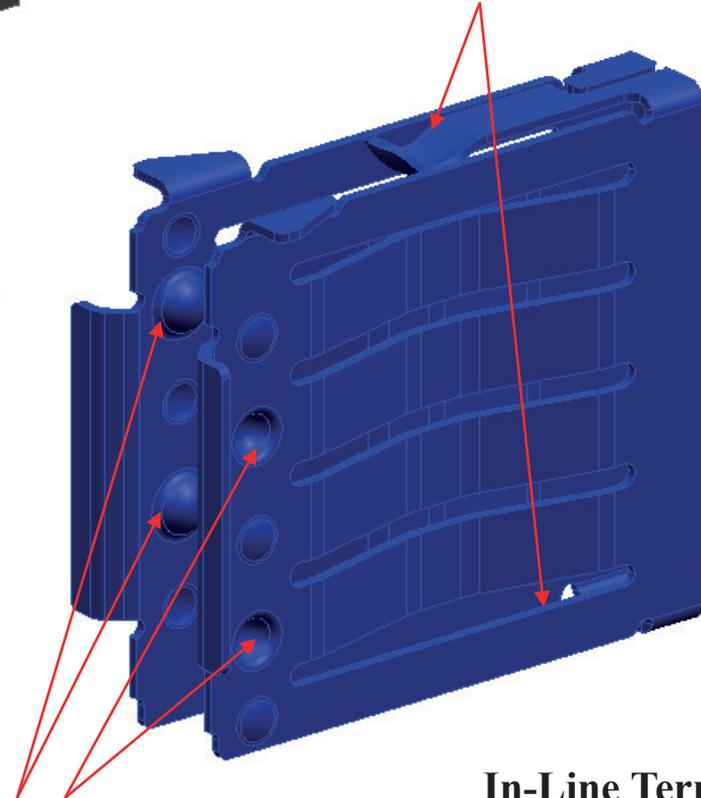
Silver BeCu material manages heat generated in high current



Right Angle Terminal Contact

Multiple contact points manage heat generated in high current (12 points)

Stabilizing spring provides support for vibration performance (2 places)

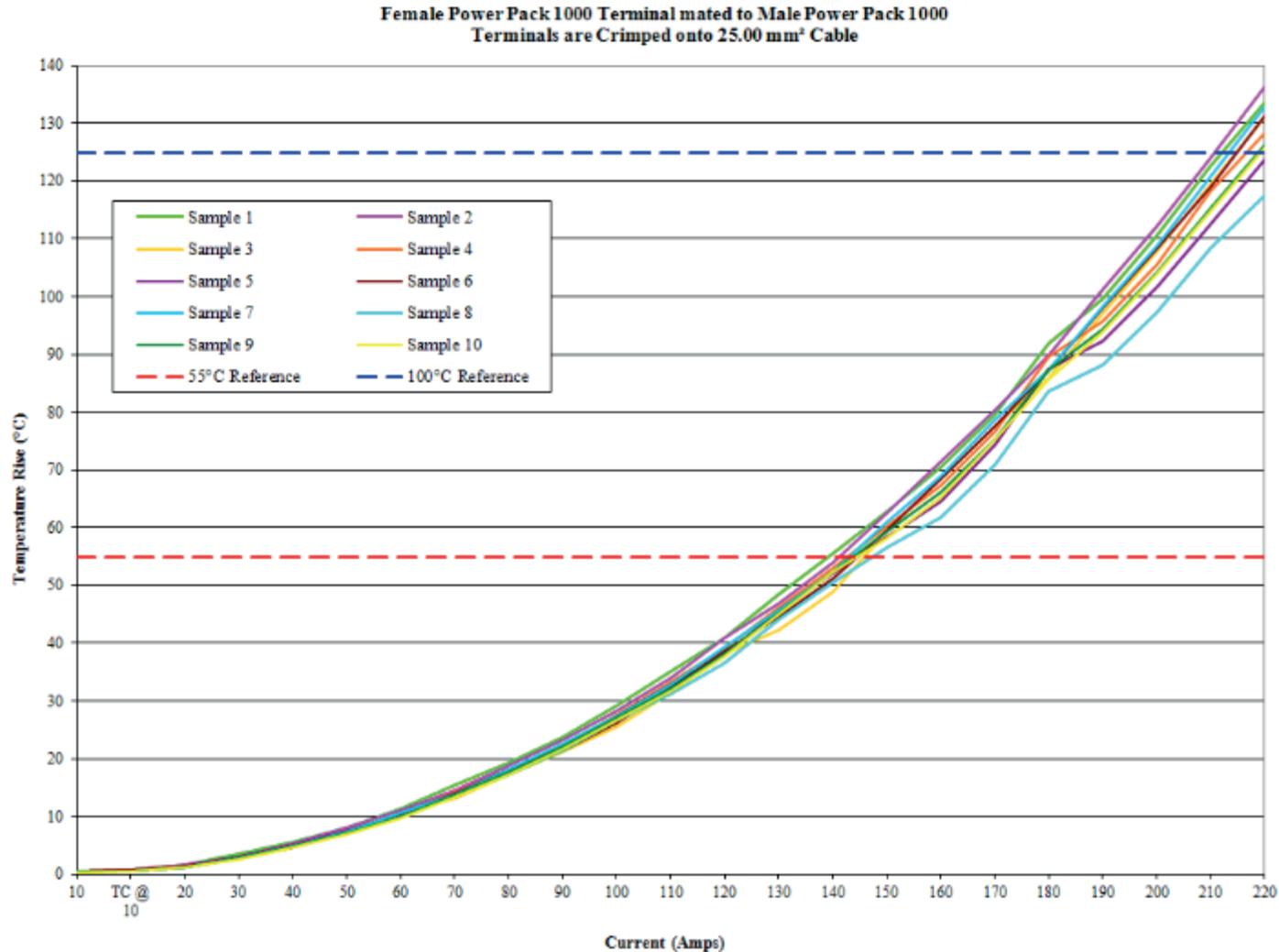


In-Line Terminal Contact Insert

Stabilizing contact provides support for vibration performance

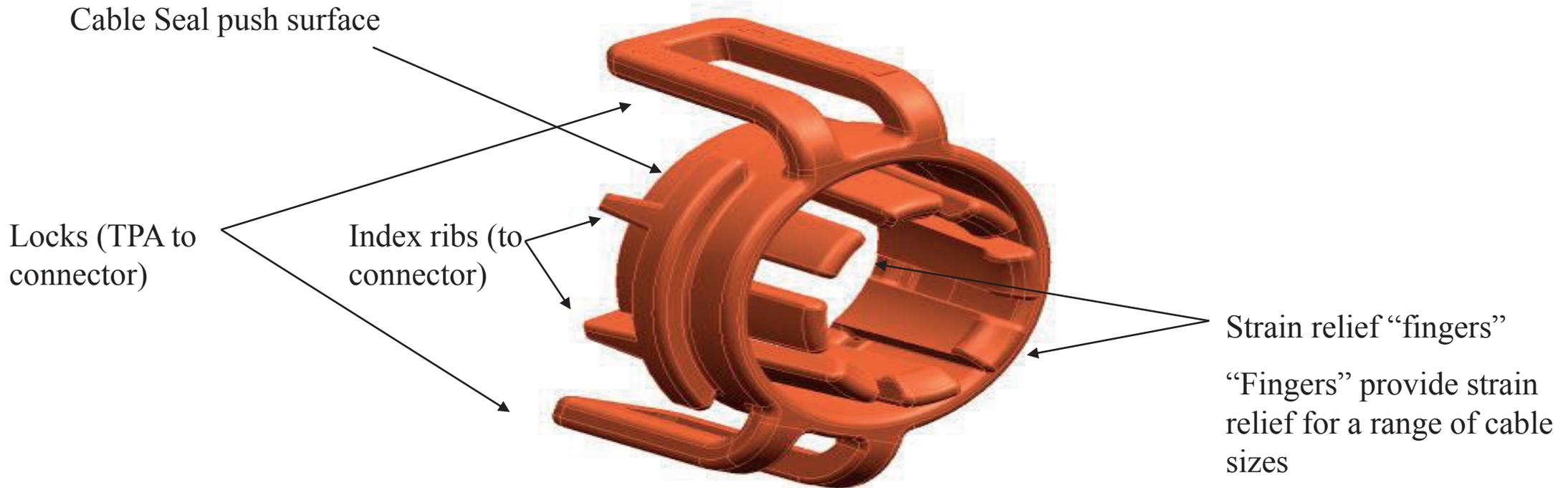
Power-Pack 1000 - Max Current Test

◆ Per USCAR-2 @ 23°C



Power-Pack 1000 design safety features

TPA is designed to be used for Male Connector, Female Connector (Right angle and In-Line), 1-way, 2-way, and 3-way systems



Content

Why POWER PACK 1000?

Market environment and
value proposition

Portfolio Overview

Portfolio scope

Technical Overview

Design features

Part Numbers

Power Pack 1000 part numbers

1 way inline connector

1 way inline connector	Description	Part Number	BOM
	Power Pack 1000 male in-line connector	13882980	1
	PP1000 Male Silver Terminal 8-10 mm ²	13675577	1
	PP1000 Male Silver Terminal 19-25 mm ²	13675579	1
	Cable seal PP1000 4.54 - 5.79 dia cable (Grey) (8-10mm ²)	13675510	1
	Cable seal PP1000 4.54 - 5.79 dia cable (Blue) (19-25mm ²)	13675513	1
	Cable seal retainer PP1000 (8-10mm ²)	13849785	1
	Cable seal retainer PP1000 (19-25mm ²)	13849788	1
	Power Pack 1000 female in-line connector	13952702	1
	PP1000 Female Silver Terminal 8-10 mm ²	13675583	1
PP1000 Female Silver Terminal 19-25 mm ²	13675585	1	

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

Power Pack 1000 part numbers

2 Way Device Connectors

2 Way Device Connectors	Description	Part Number	BOM
	Power Pack 1000 male header connector – Straight exit	13959822	1
	Power Pack 1000 male header connector – Right angle exit	13959824	1
	PP1000 Male Silver Terminal 8-10 mm ²	13675577	2
	PP1000 Male Silver Terminal 19-25 mm ²	13675579	2
	Cable seal PP1000 4.54 - 5.79 dia cable (gray) (8-10mm ²)	13675510	2
	Cable seal PP1000 4.54 - 5.79 dia cable (blue) (19-25mm ²)	13675513	2
	Cable seal retainer PP1000 (8-10mm ²)	13849785	2
	Cable seal retainer PP1000 (19-25mm ²)	13849788	2
	Power Pack 1000 female straight exit	13849756	1
	PP1000 Female Straight Silver Terminal 8-10 mm ²	13675583	2
	PP1000 Female Straight Silver Terminal 19-25 mm ²	13675585	2
	Power Pack 1000 female right angle exit	13849758	1
	PP1000 Female Right angle Silver Terminal 8-10 mm ²	13675587	2
	PP1000 Female Right angle Silver Terminal 19-25 mm ²	13675590	2

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

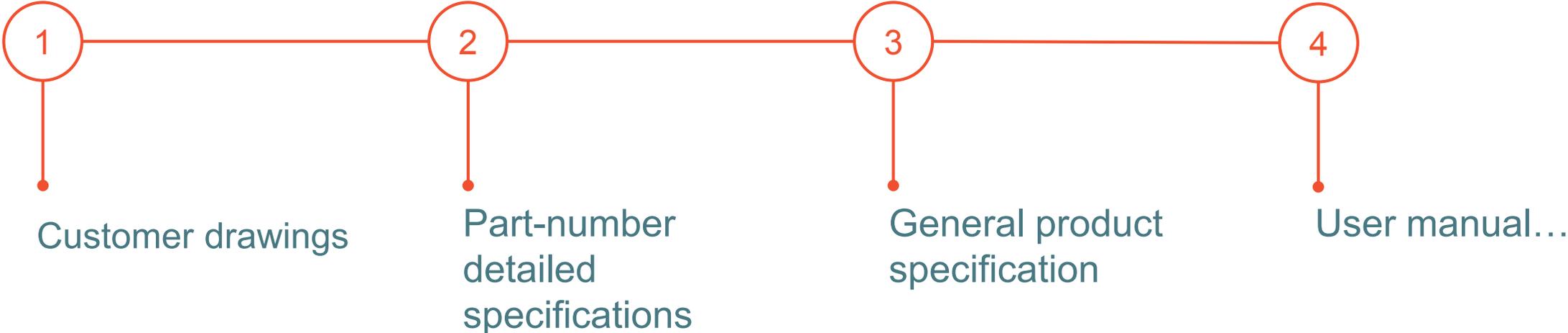
Power Pack 1000 part numbers

2 Way inline Connectors

2 Way inline Connectors	Description	Part Number	BOM
	Power Pack 1000 male header connector – Straight exit	13849747	1
	PP1000 Male Silver Terminal 8-10 mm ²	13675577	2
	PP1000 Male Silver Terminal 19-25 mm ²	13675579	2
	Power Pack 1000 female straight exit	13849756	1
	PP1000 Female Straight Silver Terminal 8-10 mm ²	13675583	2
	PP1000 Female Straight Silver Terminal 19-25 mm ²	13675585	2
	Cable seal PP1000 4.54 - 5.79 dia cable (gray) (8-10mm ²)	13675510	2
	Cable seal PP1000 4.54 - 5.79 dia cable (blue) (19-25mm ²)	13675513	2

Part numbers, specifications, dimensions and performance data in this document are for general references only and are subject to change without notice. To verify product information, please contact an Aptiv representative.

Combo Inlet - Detailed technical information



For any of the complementary and more detailed product information listed above, consult your Aptiv representative.

Thank you.