



podis®

## BEHIND EV CHARGING

The system solution for an innovative charging infrastructure.

#### 2 · podis<sup>®</sup> | EV CHARGING



#### THE INNOVATION BEHIND.

# CONNECT AND DONE





### **THE MOBILITY TURNAROUND** FOR COVERED PARKING STRUCTURES

The podis<sup>®</sup> flat cable system is the innovative system solution for decentralized energy distribution. Quick to install and flexibly expandable, it is ideally suited to making parking structures fit for the mobility transition and setting up the charging infrastructure required for e-mobility.

E-mobility is the topic of the moment. The increasing number of electric vehicles on our roads brings with it the need to build a reliable charging infrastructure.

While the planning of energy distribution for charging stations in new buildings may still be easy to implement, retrofitting existing buildings is often associated with considerable difficulties. But we have good news: the podis<sup>®</sup> flat cable system solves these problems.



#### FEATURES

- 5-core flat cable bus system
- 2 EV power circuits per cable
- IP protection class 65
- Modern appearance



#### ADVANTAGES

- Time-saving installation: no cutting and stripping necessary
- Fast expansion: Perfectly suited for retrofitting when charging stations are required at different times
- Decentralized system saves space

#### APPLICATIONS

- + For covered parking garages
- + For charging stations up to 10 kW
- + Shared charger load up to 60A

## DECENTRALIZED INSTALLATION



Decentralized installation with podis<sup>®</sup> allows you to implement energy distribution for an entire parking structure with just one supply line and place the modules for energy exactly where you need them. This saves space and ensures a modern and clear look.



- + Low space requirement
- + High flexibility during installation, for conversion and expansion
- + High labor and Cost savings

## HOW FAST CAN YOU SAY "SAVE"?



## **CENTRALIZED** INSTALLATION

A central installation means significantly higher labor costs compared to a decentralized installation. The large number of conduit lines also means that considerable space is required in the distribution cabinet. Retrofitting thus becomes a Herculean task.



- + Immense space requirement for Cable routing and fuse protection
- + Time-consuming installation





## **INSTALLATION** OF PODIS®

The podis flat cable has the capacity of hosting 2 EV charger circuits: AL1, AL2, G and BL1, BL2, G (shared ground between A and B). This capability essentially doubles the capacity of a single bus cable.



#### PODIS® ESSENTIAL ELEMENTS



#### FEATURES

- Tap-off module with 6ft pre-wired cable for either the A or B circuit.
- 3x8 AWG TCER cable used to connect to the EV charger.
- NEC current capacity of each flat cable circuit is 60A.
- UL rated voltage is 600V. Ideal for 240V and 208V chargers
- Maximum Tap-off current is 41A

#### PODIS® FLAT CABLE WITH ACCESSORIES

Designation Art. No		
1	5G16 Flat Cable	00.729.0307.1
2	Connection Module(s) with integrated 6ft 3x8 AWG TCER Cable, A and B circuit modules	34.252.1086.1 35.252.1086.6
3	Wall Mounting Clip	05.569.7453.0
4	Power Feed Box	34.233.0270.0
5	Cable End Cap	Z6.563.6553.0

## PODIS<sup>®</sup> CABLE CLIP

Optimized for maximum time savings, increased performance and easy handling.

#### VARIANTS

We offer two variants, one with an integrated "HILTI" contour for fastening with a bolt gun. The second variant has a slotted hole for classic screw fastening. Only one bolt or screw is required for fastening to the surface.

#### ONE COMPONENT

The lower and upper sections are connected to each other, which makes assembly (on the ladder) much easier.



#### LOCKING WITH QUICK-RELEASE FASTENER

The locking mechanism works without any tools. The upper part is simply pushed down. If the component needs to be opened, this can be done with a simple slotted screwdriver.



#### CARRYING THE DATA LINE

Any number of pipe clamps can be adapted to the base. In this way, a clean image of the parallel data line routing is realized.



#### ACCESSORIES

Clips for fastening to cable trays, which are already integrated in the screw version, and a mesh cable tray ("basket"), which can be ordered as a separate accessory, round off the options.



#### YOUR BENEFIT

- Raised base section offers better heat dissipation and easy retrofitting
- Screw or nail version (bolt gun "HILTI")
- Only one fixing point required
- Only one component: upper and lower part connected to each other
- No tools required for closure



#### BETTER HEAT DISSIPATION AND EASIER RETROFITTING

The lower section creates clearance between the flat cable and the substrate. The gap allows another connection module to be easily inserted at a later date. Furthermore, this leads to better heat dissipation than direct contact with the substrate.



# SAFE, NOT SORRY.



### CHARGING INFRASTRUCTURE WITH PODIS®



#### ENERGY SUPPLY

The podis<sup>®</sup> flat cable system is optimized for charging systems with an alternating current supply and tap-offs up to 10kW.

#### $\bigcirc$ LOAD MANAGEMENT

Load management is used to distribute the available energy and limits the total load on the bus to 60A and the load on each individual tap-off to 41A.

#### COMMUNICATION

Communication with the EV chargers can-depending on the charger – take place parallel to the flat cable or via WLAN.





Podis<sup>®</sup> is ideal for distributing power to EV charging stations. The connection components for the tap-off modules can be placed at any point on the flat cable. The fast and flexible positioning of the tap-off modules is made possible by the penetration their contacts.

#### PODIS® INSTALLATION OPTIONS





#### podis<sup>®</sup> flat cable system for EV CHARGING

Installation of ev charging stations now available at **D** / **WielandElectric** 

## ENDLESS ADVANTAGES





Everyone involved in the process of setting up a charging infrastructure will benefit from the numerous advantages of podis<sup>®</sup>.

#### **PROPERTY OWNERS AND DEVELOPERS**

State mandates for EV Vehicles coupled with explosive EV vehicle demand requires the equipping of new and existing parking structures with EV Charging infrastructure.

- Simple retrofitting in existing structures
- Can be installed independent of the EV charging stations
- Clean, modern appearance
- Space saving installation
- Time and money saving systems solution

#### **ENGINEERS AND ARCHITECTS**

Thanks to maximum flexibility, podis<sup>®</sup> reduces the planning effort involved in setting up a charging infrastructure to a minimum. Conversion and retrofitting are just as possible as an installation independent of the actual charging station.

- Simple planning thanks to a clear portfolio
- Expandable without major planning effort
- Large number of charging stations possible on one cable section
- Technologically mature
- Reliable operation

## LOOKING FOR A FAST INSTALL?







#### ELECTRICIANS

Install more charging stations in less time and react flexibly to your customers' wishes. You benefit in particular from the modular design. Conversions and extensions are therefore possible at any time.

- Can be extended at any point at any time with little effort
- Easy to install
- Saves time, money and material
- Cutting and stripping are not necessary
- Little cabling required
- Low conversion costs

#### **EV EQUIPMENT DISTRIBUTORS**

Enhance your portfolio with sophisticated, cutting-edge technology. Installation is extremely straightforward compared to conventional solutions. As a system solution with coordinated components, podis<sup>®</sup> also simplifies warehousing.

- Complete solution
- Simple warehousing thanks to a clear parts list and pre-packaged kits
- Technologically mature
- Simple installation as added value
- Can be installed independently of the charging station

#### CHARGING STATION MANUFACTURER

As a manufacturer of charging stations, you have the option of receiving podis<sup>®</sup> as a branded complete system. This means that you not only benefit from the sale of your charging stations, but can also offer the installation of the entire charging infrastructure.

- Better customer loyalty through expandability
- Technologically mature
- Reliable operation
- Easy installation
- Installation can also be marketed
- Complete solution

# GIVE PODIS<sup>®</sup> A TRY.

### SMART ENGINEERING, SMART PLANNING: **HOW TO CHOOSE YOUR COMPONENTS**

#### **EXAMPLE 1**

- + 8 charging stations up to 41A (10 kW) each, 4 stations on each of 2 flat cable circuits (A,B)
- + 75A fuse or breaker protection for each line (2)
- + 72ft (22 m) flat cable
- + Wall mounted using fastening clips
- + 4ft distance between flat cable and charging station



**E-Shop** 

View all products of example 1 online!

ITEM.	PART NO.	DESIGNATION	QUANTITY	COMMENTS
1	00.771.0307.1	Flat 5G16 cable	22 m	9ft standard parking space. 8 spaces
2	05.569.7553.0	Fastening clip	3 packs.	1 clip every 6ft per NEC. 3 packs of 10
3	Z6.563.6553.0	Cable end cap	1 pcs.	2 pieces peinstalled at the end of the flat cable harness
4	34.252.1086.1	Connection module A	4 pcs	For tapping off the A circuit. 6ft of 8/3 cable pre-installed
5	34.252.1086.6	Connection module B	4 pcs	For tapping off the B circuit. 6ft of 8/3 cable pre installed
6	05.505.0353.1	Feeder Box	1 pcs	Transition from source power to flat cable



#### **EXAMPLE 2: EV CHARGING KITS**

- + 8 charging stations up to 41A (10 kW) each, 4 stations on each of 2 flat cable circuits (A,B)
- + 75A fuse or breaker protection for each line (2)
- + Flat cable for 8 parking spaces
- + Wall mounted using fastening clips
- + 4ft distance between flat cable and charging station
- + EVC KIT: 34.222.0600.0



E-Shop

View all products of example 2 online!



ITEM.	PART NO.	DESCRIPTION	QUANTITY
1	00.729.0307.1	Flat cable 5G16	83 Ft.
2	Z6.563.6553.0	Cable end cap	1 pcs.
3	07.432.8100.0	Cableplastic black clip	28 pcs.
4	34.252.1086.1	5G16 TO2FE line A	4 pcs.
5	34.252.1086.6	5G16 TO2FE line B	4 pcs.
6	34.233.0270.0	5G16 EVC Feeder Box	1 pcs.

The podis<sup>®</sup> system can be assembled from just a few components and is therefore characterized in particular by its high level of planning reliability. Fast availability also avoids long waiting times.



## ALL COMPONENTS AT A GLANCE

#### **TECHNICAL DATA OF THE SYSTEM**

Product and system approvals allow podis flat cables and components to be used in applications in all 50 states. For instance, UL2875 and UL1277 fulfill all installation requirements in the USA.

The system is designated to conform to IP protection class 65.

#### **FLAT CABLE**

TECHNICAL DATA	
Rated voltage	600 V
Rated current	60 A (per circuit)
Connector cross section	16 mm <sup>2</sup> (6 AWG)
No. of poles	4 + Ground

Part No.	Cross section
00.729.0307.1	5G16, 16 mm2 (6 AWG)



#### ACCESSORIES



	Art. No.	Designation	Info
1	Z6.563.6553.0	Cable end cap	for obtaining IP protection
2	05.569.7453.0	Cable clip screw, with quick-locking mechanism	with distance to the substrate, with clips for optional cable tray fastening
3	05.569.7553.0	Cable clip nail, with quick-locking mechanism	with distance to the substrate, for fastening with bolt gun. Recommended setting tool: "HILTI BX 3-ME"; Recommend- ed nails: "X- B3 MX" (concrete), "X-S B3 MX" (steel)
4	05.569.7753.0	Clip basket	in combination with 05.569.7453.0 / 05.569.7553.0
5	F0.000.0055.7	Pipe clamp D20	for adaptation to 05.569.7453.0 / 05.569.7553.0
6	05.601.2519.0	Cable clip, standard	without distance to the substrate
7	05.601.2419.0	Cable clip with pipe holder	without distance to the substrate, with holder for installation pipe Ø 20 mm



#### CONNECTION MODULES



TECHNICAL DATA		
Rated voltage	600 V	
Rated current	41 A	
Integrated cable	8/3 TCER, Black, 6ft long with Flying Leads	
IP protection class	IP65	

Part. No.	Description
34.252.1086.1	TAP-OFF MODULE A: PODIS 5G16 T02FE BLK TC-ER 8/3
34.252.1086.6	TAP-OFF MODULE B: PODIS 5G16 T02FE BLK TC-ER 8/3

#### ACCESSORIES

	Art. No.	Designation	Info
1	Z5.507.1653.1	M32 cable screw gland	18 - 25 mm
1	Z5.507.1753.1	M32 cable screw gland	10 - 21 mm
2	05.505.0353.1	Locknut M32	for M32 cable gland





## **OTHER COMPONENTS,** ACCESSORIES AND TOOLS



#### EXPERIENCE IT FOR YOURSELF WITH THE SAMPLE CASE!



#### Sample Case EV Charging

- Flat cable 5G16 & 5G25
- Connection module for the output with cable gland
- Connection module with pluggable output
- A prefabricated cable
- Various mounting options and screw drives

Part. No.	Description	Comments
34.233.0270.0	5G16 EVC FEEDER BOX: 25mm OPENING	For energizing the flat cable from the power source
95.350.1000.0	STRIPPING KNIFE FOR 5G16 CABLE	Dismantling knife for traycable podis® 5G16
F0.000.0051.9	CUTTING TOOL	Cutter for 5G16 podis® cable
99.789.0000.0	SAMPLE CASE PODIS 5G16	Flat cable 5G16, connection module for the output with cable gland, the Connection module with pluggable output, a pre-assembled cable, various mounting options and screw drives.





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