

Product data sheet

Powerchain



Chain drive for large and heavy window elements that need
large opening widths

AREAS OF APPLICATION

- Smoke and heat extraction system and natural ventilation (24 V) in the façade and roof area
- Can be used in the exhaust air and air intake
- Inward- and outward-opening windows with bottom-hung, top-hung and side-hung leaves
- Roof window
- Installation on wooden, PVC or metal windows
- Leaf and frame installation
- Synchronisation of up to four drives
- System solution in combination with the Power lock locking drive

PRODUCT FEATURES

- Fast opening speeds in the event of smoke and heat extraction, even for very heavy windows
- Continuously adjustable drive stroke and individual speeds for ventilation and smoke and heat extraction
- Available as special version – stroke, cable length and colour configurable
- Synchronisation of max. four drives without external control unit
- DIP switches for changing the mode of operation (Solo and Syncro, master, slave)
- Fast and easy installation with the Smart fix installation system
- IQ windowdrive – intelligent drive control
- Tested as a natural smoke and heat exhaust ventilation device (SHEV) in accordance with EN 12101-2

TECHNICAL DATA

| | |
|----------------------------------|--|
| Productname | Powerchain |
| Space needed on frame (min.) | Frame installation inward-opening: 50/61 mm (for swing leaf DIN L), leaf installation inward-opening: 30/41 mm (for swing leaf DIN R), frame installation outward-opening: 50 mm |
| Space requirement on leaf (min.) | Frame installation inward-opening: 40 mm, leaf installation inward-opening: 50 mm Frame installation outward-opening 30/41 mm (for swing leaf DIN R) |
| Opening speed RWA | 15 mm/s |
| Opening speed ventilation | 5 mm/s |
| Closing speed (max.) | 5 mm/s |
| Force of pressure (max.) | 600 N (depending on stroke), see force-path diagram |
| Holding force (max.) | 3000 N |
| Tensile force | 600 N |



| | |
|--|---|
| Leaf weight | 200 kg* |
| Overlap range | 0 - 23 mm (depending on application and brackets) |
| Voltage at operation | 24 V ± 25 % |
| Operating voltage | 24 V DC |
| Current consumption | 1.5 A |
| Current consumption according to area of application | Ventilation (24 V): 1.2 A; RWA (18 V): 1.5 A |
| Power consumption | 36 W |
| Duty rating | 30 % |
| Special length of connector cable | 5 m, 7.5 m |
| Min. core cross section | 0.75 mm ² |
| Number of cores | 4 cores |
| Service temperature | -5 - 70 °C |
| IP rating | IP40 |
| protection rating | III |
| Synchronising function | Yes |
| Adjustable opening speed (ventilation) | Yes |
| Additional locking available | Yes |
| Type of additional locking mechanism | Locking drive |
| Type of stroke shortening | Synchronising unit, Factory setting |
| End position cut-off extended | electronic, via internal path sensor |
| End position cut-off retracted | electronic via current consumption |
| Overload cut-off | Yes |
| Complete opening within 60 s | yes, up to 800 mm stroke, including locking drive |
| SHEV tested | Yes |
| SHEV additional information | yes, up to 800 mm stroke, including locking drive |
| Number synchronisation drive units | 4 |
| KNX ability | Yes |
| Bottom-hung window INWARD-opening frame installation | Yes |
| Bottom-hung window INWARD-opening leaf installation | Yes |
| Bottom-hung window OUTWARD-opening frame installation | Yes |
| Side-hung window INWARD-opening frame installation | Yes |
| Side-hung window INWARD-opening door leaf installation | Yes |
| Side-hung window OUTWARD-opening frame installation | Yes |
| Top-hung window INWARD-opening frame installation | Yes |
| Top-hung window INWARD-opening leaf installation | Yes |
| Top-hung window OUTWARD-opening frame installation | Yes |
| OUTWARD-opening roof window | Yes |

NETWORKING



VARIANTS / ORDER INFO

| Designation | Description | Ident-No. | Colour | Stroke |
|------------------------------|---|-----------|----------------|---------|
| Powerchain | | 147090 | EV1 | 800 mm |
| Powerchain | | 147101 | white RAL 9016 | 1200 mm |
| Powerchain | | 147081 | white RAL 9016 | 600 mm |
| Powerchain | | 147091 | white RAL 9016 | 800 mm |
| Powerchain | | 147080 | EV1 | 600 mm |
| Powerchain | | 147100 | EV1 | 1200 mm |
| Powerchain – special version | Can be configured: Stroke, cable length, colour | 147120 | | |

ACCESSORIES

BRACKET SET ET POWERCHAIN *

For top hung windows, inward-opening



| Designation | Description | Ident-No. | Colour |
|-----------------------------|--|-----------|----------------|
| Bracket set ET Powerchain * | For top-hung windows frame installation INWARD OPENING | 161140 | black |
| Bracket set ET Powerchain * | For top-hung windows frame installation INWARD OPENING | 161139 | white RAL 9016 |

BRACKET SET A POWERCHAIN

For bottom-hung, side-hung and top-hung windows



| Designation | Description | Ident-No. | Colour |
|--------------------------|--|-----------|----------------|
| Bracket set A Powerchain | For bottom-hung, side-hung and top-hung windows, frame installation INWARD OPENING | 147111 | white RAL 9016 |
| Bracket set A Powerchain | For bottom-hung, side-hung and top-hung windows, frame installation INWARD OPENING | 147110 | black |

BRACKET SET B POWERCHAIN

For bottom-hung, side-hung and top-hung windows and for different roof profile systems



| Designation | Description | Ident-No. | Colour |
|--------------------------|--|-----------|----------------|
| Bracket set B Powerchain | For bottom-hung, side-hung and top-hung windows, leaf installation INWARD OPENING and frame installation OUTWARD OPENING. Roof profile system: Aluprof MB-SR 50, Reynaers CW 50, Raico Wing 105 DI | 147112 | black |
| Bracket set B Powerchain | For bottom-hung, side-hung and top-hung windows, leaf installation INWARD OPENING and frame installation OUTWARD OPENING. Roof profile system: Aluprof MB-SR 50, Reynaers CW 50, Raico Wing 105 DI | 147113 | white RAL 9016 |

BRACKET SET ROOF D1 *

For roof windows



| Designation | Description | Ident-No. | Colour |
|----------------------------------|---|-----------|-----------------|
| Bracket set roof D1 Powerchain * | For roof window frame installation OUTWARD OPENING. For roof profile system: Heroal C50, Hueck 85E, Wicona Wictec 50-60 | 154869 | silver-coloured |

BRACKET SET ROOF D2

For roof windows



| Designation | Description | Ident-No. | Colour |
|---------------------|--|-----------|-----------------|
| Bracket set roof D2 | For roof window frame installation OUTWARD OPENING. For roof profile system: Akotherm AT 500F, Alcoa AA100, Heroal 180, Hueck VF50, MGlass | 154870 | silver-coloured |

BRACKET SET ROOF D3 *

For roof windows



| Designation | Description | Ident-No. | Colour |
|--------------------------|---|-----------|---------------------|
| Bracket set roof D3 * | For roof window frame installation OUTWARD OPENING. For roof profile system: Schüco AWS 57RO | 158053 | silver- coloured |

CHOICE OF BRACKETS FOR POWERCHAIN

Special version can be configured in terms of opening type, opening direction, installation type and colour



| Designation | Description | Ident-No. | Colour |
|--|---|-----------|---------------------|
| Bracket set Powerchain special version | Can be configured: Type of opening, opening direction, installation type, colour | 147121 | according to RAL |
| Bracket set Powerchain roof special version | Can be configured: Profile system, colour | 159901 | according to RAL |

SAFETY SCISSORS NO. 35

For protection of bottom-hung leaves



| Designation | Description | Ident-No. | Colour |
|------------------------|--|-----------|------------|
| Safety scissors no. 35 | Fix pack available from stock (10 pieces), minimum leaf height 300mm | 014499 | Galvanised |



SAFETY SCISSORS NO. 60

For protection of bottom-hung leaves



| Designation | Description | Ident-No. | Colour |
|------------------------|--|-----------|------------|
| Safety scissors no. 60 | Fix pack available from stock (10 pieces), minimum leaf height 700mm | 133814 | Galvanised |

BRACKET SET POWERCHAIN ROOF SPECIAL VERSION

For roof windows



SERVICE CASE IQ WINDOWDRIVE

For commissioning and parameter setting of the window drives from the IQ windowdrive range



| Designation | Description | Ident-No. | Colour | Supply voltage |
|----------------------------------|---|-----------|-----------------|----------------|
| Service case GEZE IQ windowdrive | for commissioning of 24 V window drives and for parameter setting of the IQ windowdrive drives in combination with the ST 220 | 142586 | silver-coloured | 100 - 240 V AC |

POWER SUPPLY HS

24 V power supply for top hat rail mounting



IQ GEAR *

Interface for activation of the Slimchain, Powerchain and E 250 NT window drives in ventilation mode



| Designation | Description | Ident-No. |
|-------------|--|-----------|
| IQ gear * | Interface for activation of the Slimchain, Powerchain and E 250 NT window drives in ventilation mode | 151959 |

IQ BOX SAFETY *

Safety module for protecting hazardous areas of power-operated windows



| Designation | Description | Ident-No. | Dimensions | Operating voltage | Type of installation |
|-----------------|---|-----------|-----------------|-------------------|-----------------------|
| IQ box Safety * | Module for closing edge protection for window drives from the 24V IQ windowdrive series. One IQ box Safety is needed per window (also for Syncro applications and with locking drives). Top hat rail mounting (space needed 32 mm/2 TE) | 187677 | 35 x 90 x 60 mm | 24 V DC | Top hat rail mounting |

NT 2.5 A-24 V SM DIR POWER SUPPLY

24 V power supply for surface-mounted installation with integrated direction control/polarity reversal



| Designation | Description | Ident-No. | Colour | Dimensions | Operating voltage |
|-----------------------------------|---|-----------|--------|------------------|-------------------|
| NT 2.5 A-24 V SM DIR power supply | Output voltage 24 V DC / W x H x D: 200 x 50 x 25 mm / Surface-mounted installation / With integrated direction control/polarity reversal | 195293 | grey | 200 x 50 x 25 mm | 230 V AC |

Powerchain



* The products designated above may vary in form, type, characteristics, function, or availability depending on the country. Please get in touch with your GEZE contact person if you have any questions.