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

Powerchain

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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 mm²
Number of cores	4 cores
Service temperature	–5 - 70 ℃
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

Powerchain

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

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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

Powerchain

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

Powerchain

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

* 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.