Rail Power Systems

TracFeed® SFA
MOTOR DRIVES

English

For Disconnectors in Mainline and Mass Transit Applications

Made in Germany

TracFeed® SFA MOTOR DRIVES FOR DISCONNECTORS IN MAINLINE AND MASS TRANSIT APPLICATIONS

Products from Rail Power Systems

For decades, Rail Power Systems has been developing and producing TracFeed® catenary products in close collaboration with customers and partners. TracFeed® products are approved in many countries by mainline and mass transit system operators, and have proven themselves over many years of deployment under the most varied conditions.

The TracFeed® SFA motor drives enable actuation of the disconnectors and earthing switches of the mainline and mass transit catenaries that are installed on the mastheads. The TracFeed® motor drives developed by Rail Power Systems offer many possibilities for customisation due to the extensive range of supplemental equipment. The use of a toothed belt helps reduce switching noises. What's more, due to sturdy design and the choice of materials, Rail Power Systems TracFeed® motor drives have an extremely long expected service lifeand require minimal maintenance work.

Basic data		
Housing dimensions	mm	600 x 380 x 210
Switch stroke	mm	100 / 200
Control voltage	V	230 AC/50 Hz / 110 / 220 DC
Power consumption	A	2,5
Torque on the driving crank	Nm	› 400
Switching cycles		› 20 000
Switching time	s	2
Weight	kg	31
Degree of protection		IP54
Material		Stainless steel 1.4301

Design principle and product concept

TracFeed® SFA motor drives consist of the following components:

- Housing
- Drive unit
- Electrical equipment

The housing can be opened either downwards or to the side and, depending on the version, it can be safeguarded against unauthorised opening with either a padlock or a pivot lever. Additional safety measures, such as protection against inadvertent manual operation, are available on request.

The connection dimensions of the housing correspond to the motor drives used by Deutsche Bahn AG. The drive system consists of a drive motor and a gear housing with an integrated deflection. The electrical equipment comprises closed units which can be removed and installed on site. Retrofitting of optional equipment, such as short-circuit indicator relays, limit position contacts (parallel arrangement) and local control components, has already been taken into account for the installation space.

A permanent magnetically actuated DC motor is used as a drive. Power is transmitted by means of positive locking, using a toothed belt on a trapezoidal thread spindle whose self-locking mechanism effectively prevents a reversal of the direction of rotation throug the external application of force on the control lever.
The linear motion of the driven spindle nut is converted to a circular motion on the adjustment lever by a deflection element. The resulting stroke on the control lever can be selected in two stages (100 or 200 mm).

An overcurrent relay with current-independent delay that switches off the drive in the event of an obstruction after approx. 2 seconds, serves as motor protection.

The motor drive can also be actuated by means of a hand crank, by means of which it can be moved to home position and a functional check can be performed. When the housing cover is opened, the voltage supply is interrupted (only with versions without local control).

Arrangement

TracFeed® SFA motor drives are mounted on the catenary mast and are connected to the disconnector via an adjusting device.

In a standard use case, the switch is actuated via switch linkage which, starting from the motor drive attached to the mast, establishes a mechanical connection to the control lever of the switch.

Rail Power Systems has the following switch mechanism variants available in its delivery range:

- Manual drive
- Electro-mechanical TracFeed® SFA switch mechanism in a stainless steel housing

Of course we also provide:

- Switch linkages
- Spare parts

Accessories

The following accessories can be used in conjunction with the TracFeed® SFA motor drives:

- Heating module & temperature controller
- Potential indicator contact
- Visual position indicator
- Short-circuit indicator relay
- Hand crank

Of course, other configurations appropriate for the system operator's operational and safety requirements are also available.

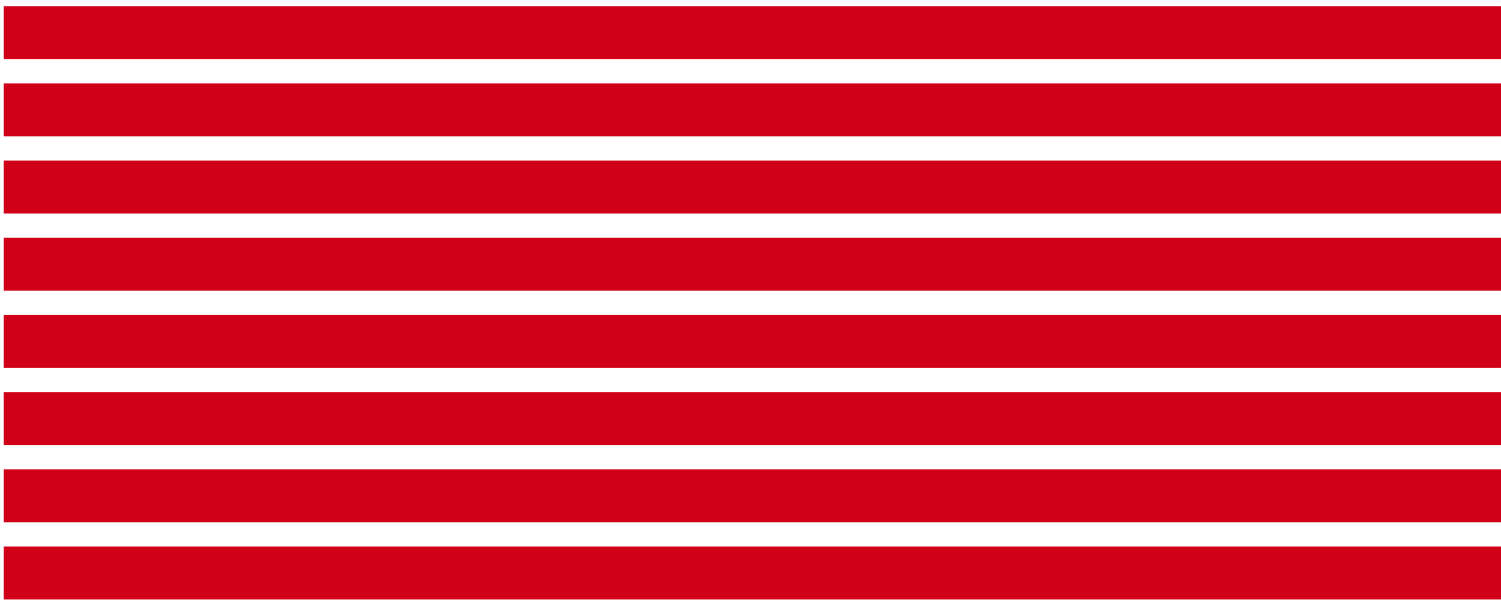
Interior Arrangement (of type 1.13)

Order number	3EGF016977	3EGF013113	3EGF018180	3EGF018160	3EGF015901	3EGF016433
Type	1.6	1.7	1.9	1.13	1.18	1.19
Potential-free indicator contacts	X	X	X	X	X	X
Manual drive	X	X			X	X
Currentless crank opening	X	X			X	X
Pivot lever lock	X	X	X	X		X
Visual position indicator	X					X
Door opener contact	X	X	X	X	X	X
Operating mode selector switch ON – DISABLED			X	X		
Circuit breaker for voltage transformer			X			
Local control – required continuous current		X			X	
Heating device					X	X
Safety lock – manual drive	X				X	X
References in	Austria/ÖBB	Austria/Linz, Vienna	Germany/ DB AG	Germany/ DB AG	Malaysia/ KTMB	Sweden/ Stockholm

RPS/EN/409/0916

Quality made in Germany
Rail Power Systems TracFeed® catenary components are manufactured in our Munich production facility.

Quality in use worldwide
Rail Power Systems TracFeed® catenary products are used all over the world. TracFeed® SFA Motor Drives are used in following countries, among others, by mass transit and mainline traffic operators: Germany, Austria, Luxembourg, Sweden, Norway, Romania, Turkey, China and Malaysia.



The specifications set out in this document apply to popular applications. They do not represent performance limits. This means that divergent specifications may be attained in specific applications. The contractually agreed specifications alone shall apply. We reserve the right to effect technical modifications. TracFeed® is a registered trademark of Rail Power Systems GmbH.

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