

ROBA-stop[®]-S have two functions. During standard operation they work as holding brakes. When the drives have been switched off the brakes hold the system safely in position. During critical operational situations, e.g. with EMERGENCY STOP or power failure, ROBA-stop[®]-S are designed to absorb peak loads with high friction work. These brakes are designed for vertical and horizontal operations.

Dust and waterproof

Completely enclosed brake design corresponds to Protection IP 67.

Permanent protection against corrosion

Protection IP 67, a high-quality brake body primary coating, chrome or nickel-coated interior parts or use of rustproof steels ensure protection against corrosion.

Easy handling

Compact construction and small outer diameters mean easy brake handling.

Inspection without system downtimes

A threaded hole allows fast inspection of the air gap without dismantling the brake or system stoppage.

Minimum maintenance expenditure

Should the friction linings be worn, just readjust the air gap or replace the rotor with its friction linings.

Minimum operating expenses

High working reliability and low maintenance expenditure reduce the operating expenses of the brake to a minimum.

Rectifier

A rectifier integrated in the terminal box allows a brake connection to AC-supply. The magnetic coil is designed as a DC-coil.

Wear control

An additional microswitch can be installed into the ROBA-stop[®]-S which monitors the wear on the friction linings.

Brake housing and integral terminal box

The one-piece cast iron housing with integrated terminal box is extremely robust and, therefore, protected against mechanical damages.

Optimum protection for electrical equipment

The electrical supply and the inspection and monitor function microswitches are completely protected inside the cast terminal box.

Release monitoring

The ROBA-stop[®]-S is fitted with a microswitch for release monitoring. The microswitch emits a signal when the brake is opened.

Tacho attachment

The brake body can be fitted with a tacho attachment. If no tacho is used, the coil carrier is closed by a cover.

Emergency hand release

The ROBA-stop[®]-S is fitted with an emergency hand release. The brake can be released mechanically via two screws (bracket hand release available on request).

Condensation water inspection

Regular inspection is possible via a drain plug.

Anti-condensation heating

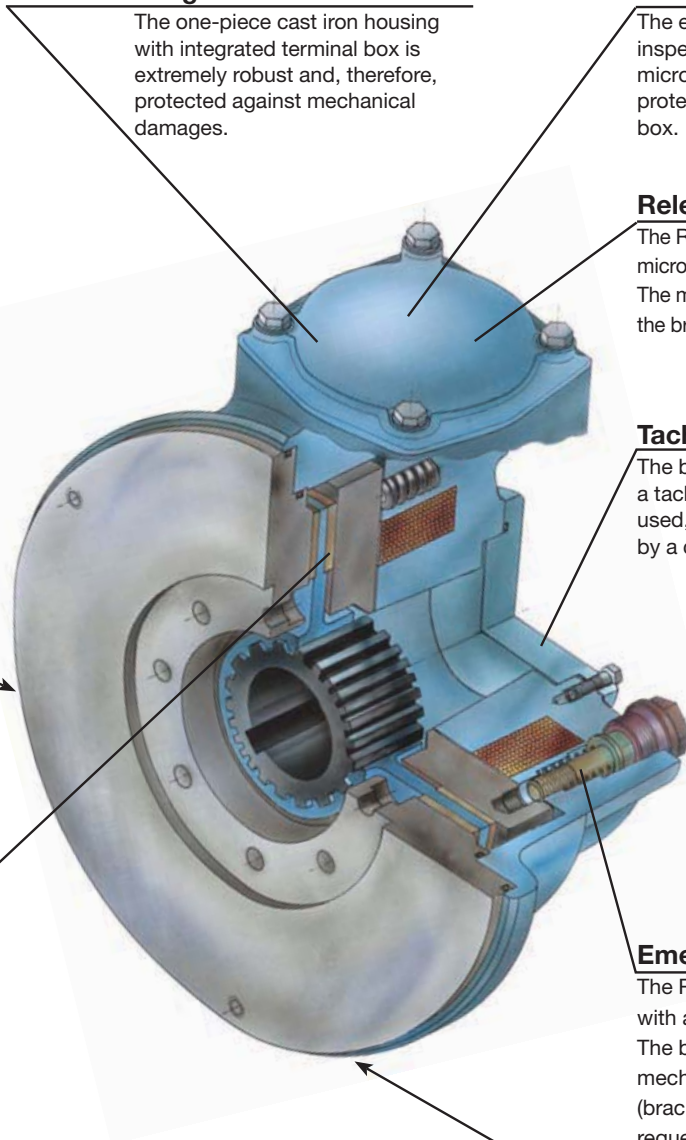
The heater avoids condensation water inside the brake. This usage is especially recommended at temperatures under zero degrees Celsius or in high air humidity.

Braking torque

By changing the number of springs, the braking torque can be adapted to the customer's requirements.

Motors with self-ventilation

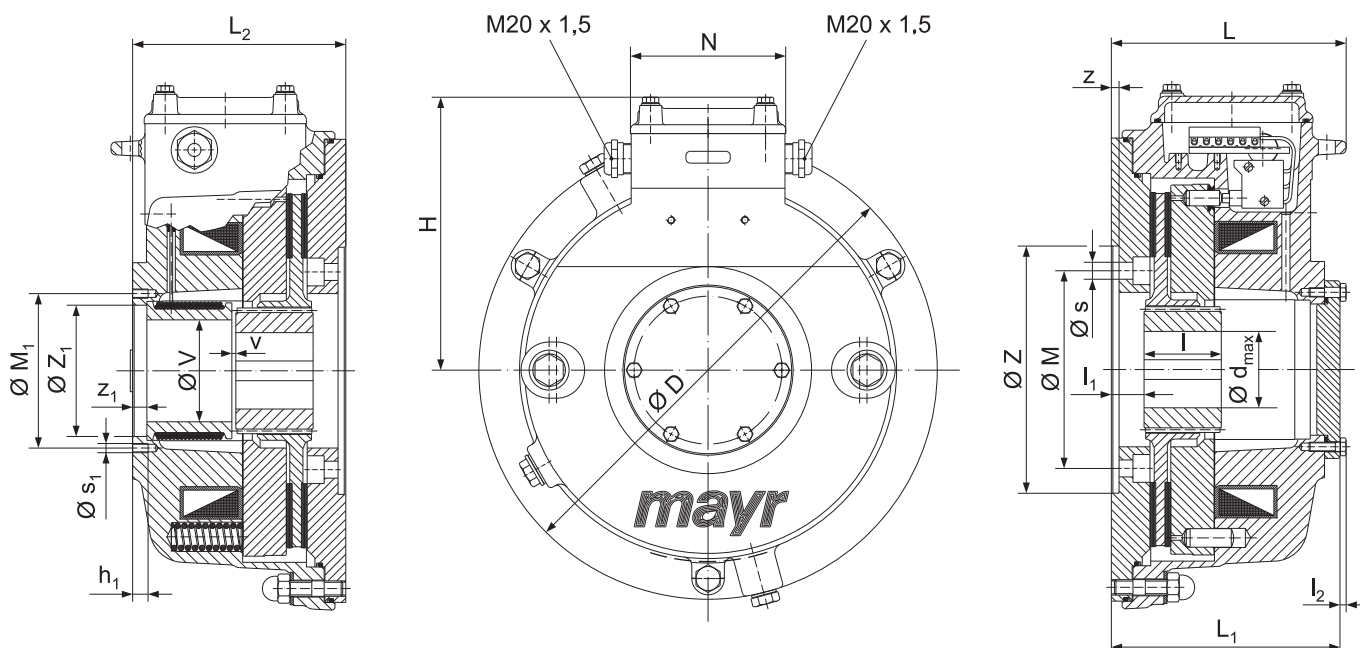
In order to assemble the ROBA-stop[®]-S onto motors with continuous shafts on the B-bearing side, the closed standard-cover on the brake rear side is exchanged for the open cover with integrated radial shaft seal ring.



ROBA-stop[®]-S

Sizes 8 – 10

Type 856



Technical Data and Dimensions

Size	Braking torque M ¹⁾ [Nm]	Max. speed n [rpm]	Input power P ₂₀ coil [W]	Input power ACH* [W]	Moment of inertia rotor and hub bore d _{max} [10 ⁻⁴ kgm ²]	Tightening torque fixing screws [Nm]	Friction work per 0,1 mm wear Q _{0,1} [J/0,1]	Friction work up to adjustment Q _N [J]	Friction work up to wear on rotor Q _{tot.} [J]	Weight [kg]
8	100	3400	85	15	17,9	23	44 x 10 ⁶	132 x 10 ⁶	308 x 10 ⁶	19
9	200	3000	100	15	33,7	23	54,5 x 10 ⁶	272 x 10 ⁶	545 x 10 ⁶	26
10	400	3000	120	21	84,8	46	70 x 10 ⁶	420 x 10 ⁶	770 x 10 ⁶	42

1) Braking torque tolerance = +40%/-20%
Other braking torques available on request.

*ACH = Anti-Condensation-Heating
standard voltages 115/230 VAC

Standard voltages 24; 104; 180; 207 VDC
Permitted voltage tolerance acc. IEC 60038 +/- 10%

Size	Ø d _{min} ²⁾	Ø d _{max} ²⁾ DIN 6885/1	Ø d _{max} ²⁾ DIN 6885/3	Ø D	H	h ₁	L	L ₁	L ₂	l ²⁾	l ₁	l ₂
8	25	45	–	240	155	10	143,5	118	108	35	12	4
9	25	47	50	270	167	10	138,5	128,5	118,5	35	18	4
10	25	57	60	310	185	10	152,0	148	138	50	21 ₋₁₀	4

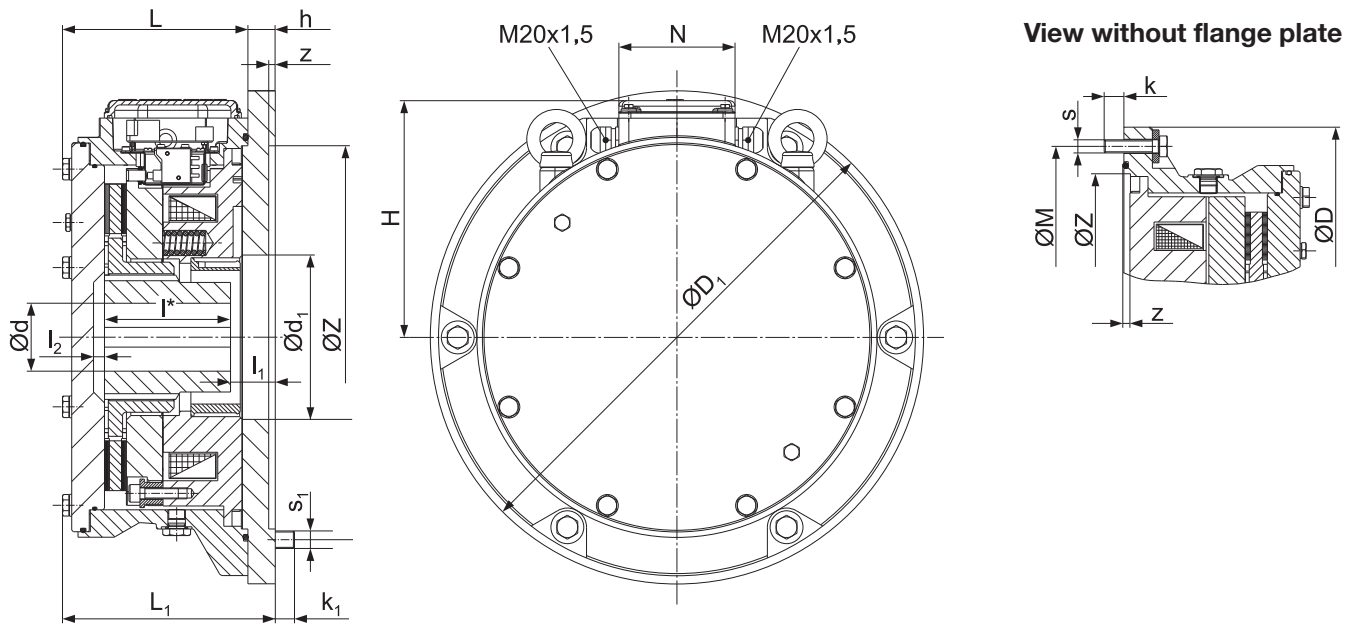
Size	M	Ø M ₁	N	s	s ₁	Ø V	v	Z ^{H8}	Z ^{H8} ₁	z	z ₁
8	100	100	109	6 x 9	M6	46	6,5	130	85	5	5,5
9	110	100	109	8 x 9	M6	50	6,5	140	85	5	6
10	128	100	109	8 x 11	M6	66	2,0 ⁺¹⁰	160	85	5	9

2) Please observe load on shaft and keyway!

We reserve the right to make dimensional and constructional alterations.

Size 11

Type 856.417._



Technical Data and Dimensions

Size	Braking torque M ¹⁾ [Nm]	Max. speed n [rpm]	Input power P ₂₀ [W]	Weight [kg]		Moment of inertia rotor and hub with d _{max} I [kgm ²]	Tightening torque mounting screw [Nm]	
				With flange plate	Without flange plate		Ø s	Ø s ₁
11	800	3000	268	95	86	3,606 x 10 ⁻²	61	122

Size	Wear values ²⁾			Bore	
	Friction work per 0,1 mm wear Q _{0,1} [J/0,1]	Friction work up to 1st adjustment Q _N [J]	Total friction work up to wear of rotor Q _{tot.} [J]	Ø d _{min} DIN 6885/1	Ø d _{max} DIN 6885/1
11	95 x 10 ⁶	475 x 10 ⁶	1900 x 10 ⁶	55	75

Size	ØD	ØD ₁	Ød ₁	H	h	k	k ₁	L	L ₁	I*	l ₁	l ₂	Ø M	Ø M ₁	N	s	s ₁	Z ^{F6}	z
11	435	450	150	217	25	24	17,5	169,1	194,1	115	40,8	10	400	400	106	6xM12	8xM16	350	6

* Observe load on shaft or keyway!

1) Braking torque tolerance: + 40% / - 20%. Higher torques available on request.

2) Related to switching work 100 000 J

We reserve the right to make dimensional and constructional alterations.

Order Example:

To be stated on order:	Size	Type	Voltage [V DC]	Bore Ø d ^{H7}	Keyway acc. DIN
Order number:		856.417._			

8 - 11

- Terminal box with terminal 1
- Terminal box with half-wave rectifier 4
- Terminal box with bridge rectifier 5

Options:

- Anti-condensation heating
- Microswitch for wear monitoring
- Tacho attachment possible (standard on sizes 8 - 10)
- Also available without flange plate (only on size 11)
- Other Types available on request

6885/1
6885/3

According to size

24; 104; 180; 207 V-coil

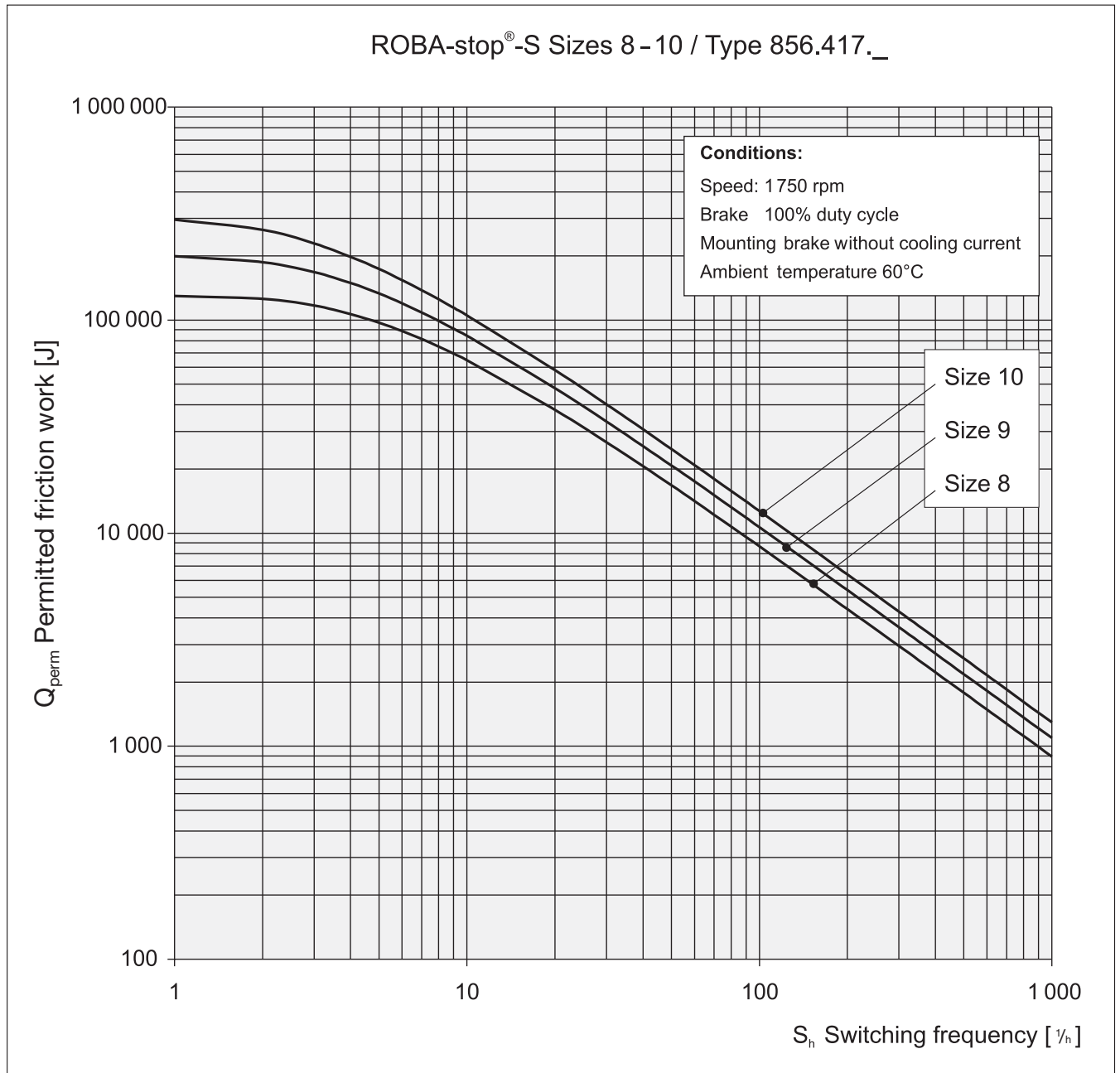
Example: Order number 9 / 856.417.4 / 30 / 6885/1

ROBA-stop[®]-S

Sizes 8 – 10

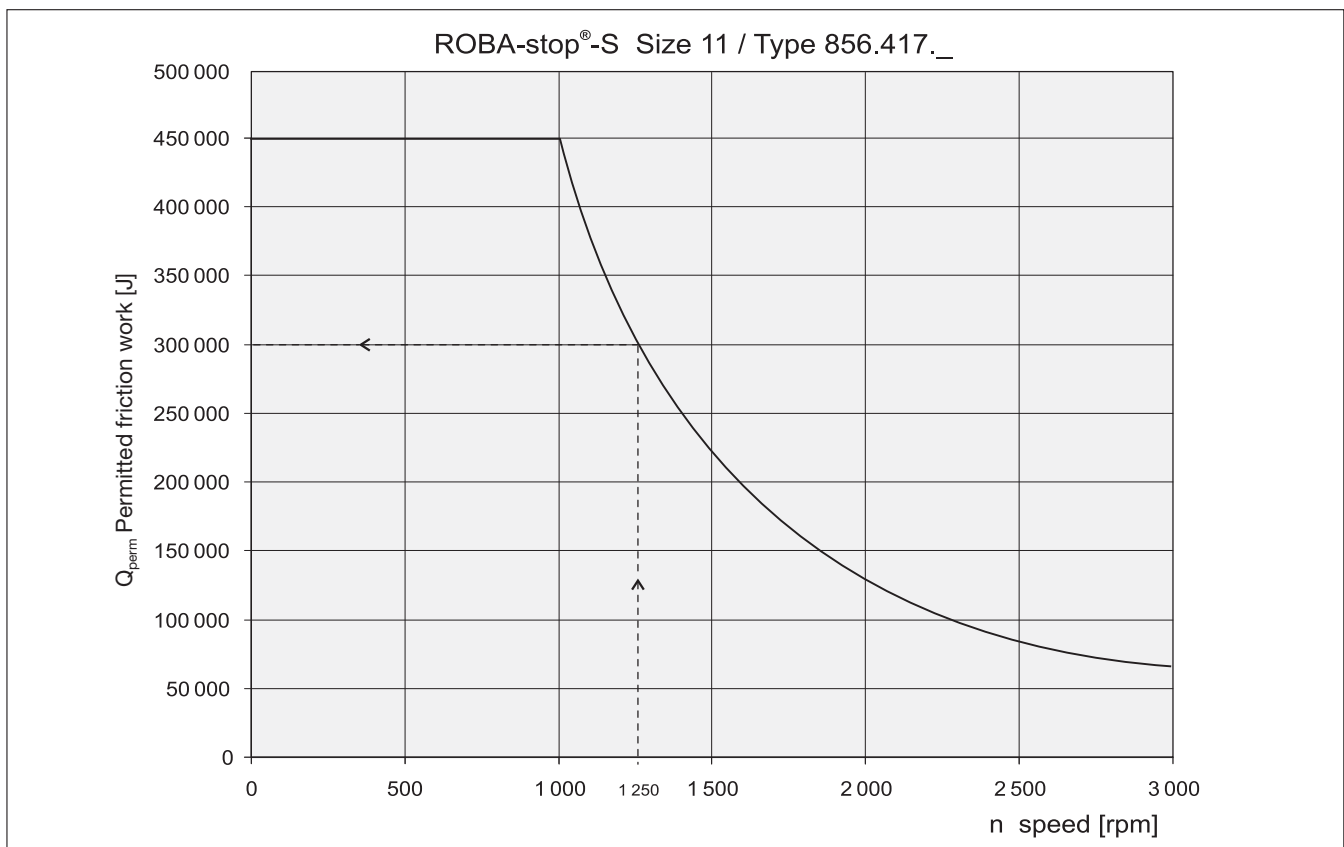
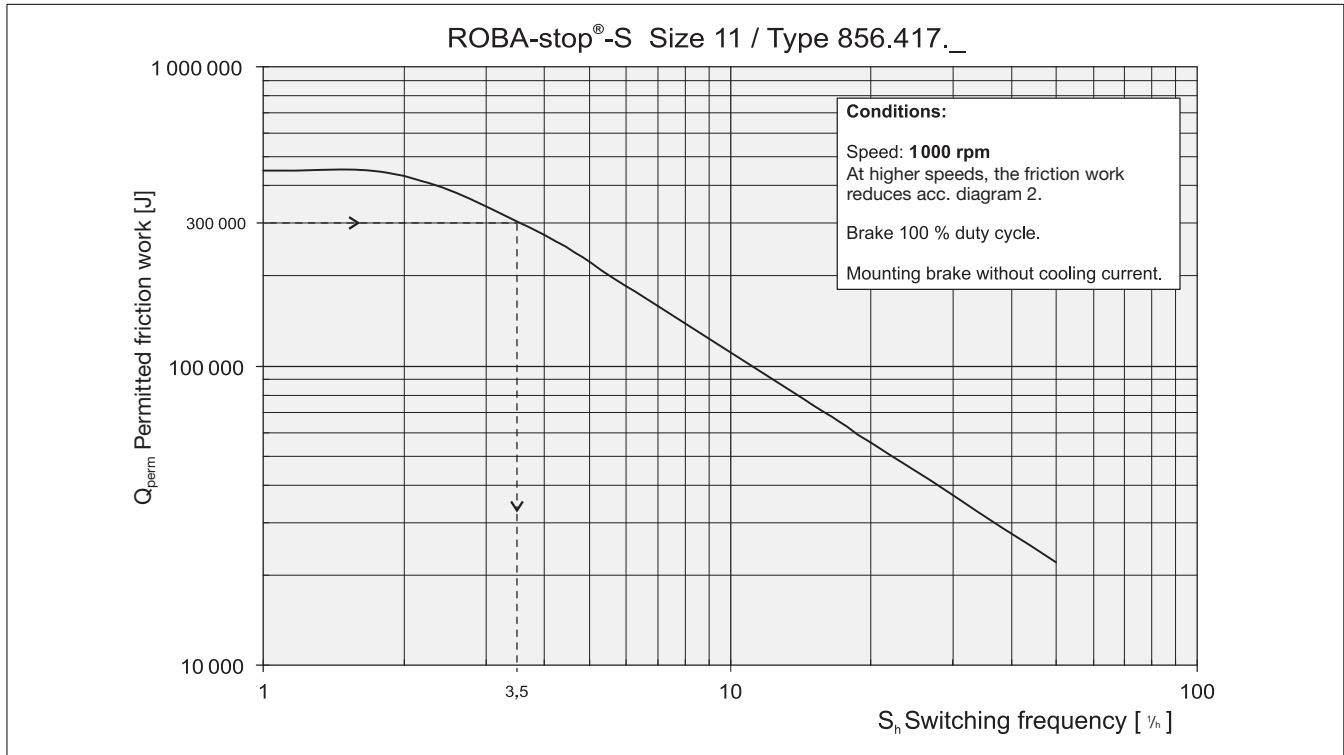
Type 856.417._

Friction Power Diagram



For higher speeds than 1750 rpm (sizes 8, 9 and 10):
 Please contact the manufacturers for information on the permitted friction work Q_{perm} .

Friction Power Diagram



Design example for a speed of 1250 rpm:

Permitted friction work Q_{perm} for 1250 rpm from diagram 2: 300 000 J.

This value limits the permitted friction work Q_{perm} acc. diagram 1 for low switching frequencies (here up to 3,5 switchings per hour).

The permitted friction work Q_{perm} reduces acc. diagram 1 with higher switching frequencies.