

# SUCO centrifugal brakes for small wind turbines

#### Normal operation



# independent

Protects rotors and gearing without external energy

**Braking process** 



#### safe

Stepless braking to a complete standstill

Automatic restart



## comfortable

Independent restart without any external intervention

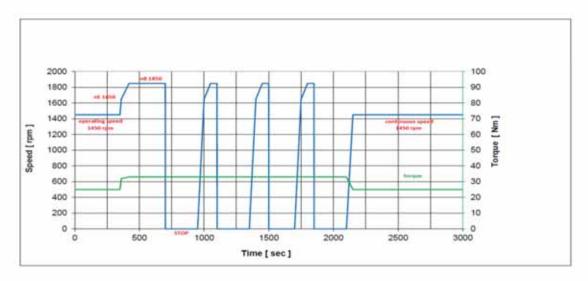
## New safety brake system SUCO WindChill

Independent centrifugal technology for all small wind turbines

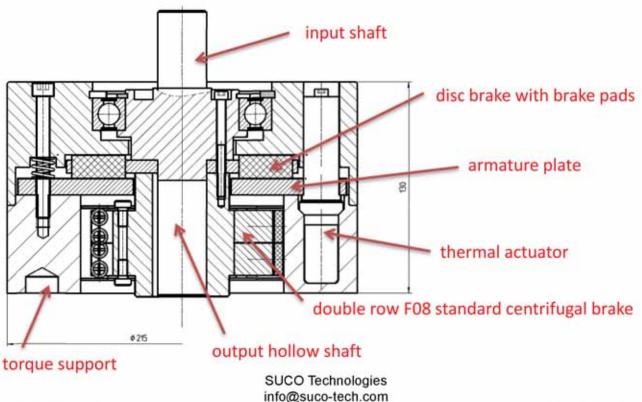
SUCO has specialized in Centrifugal Technologies for over 60 years. Based on this expertise we have developed a patent registered safety braking system, which can be adapted to your needs. You will receive complete integrative solutions, made in Germany.

SUCO WindChill brake is a combination of a classic centrifugal brake to control over speed of a wind turbine and thermal actuated static holding brake to bring down the system to a complete stop.

### Typical diagram of a WindChill brake - speed/ torque vs. time



Typical design of a WindChill brake for a 5 kW generator at 1500 rpm



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## Typical data of a WindChill brake for a 5 kW generator at 1500 rpm

Maximum operating speed without any brake functions	1450 rpm
Engagement speed for centrifugal brake	1650 rpm
Braking speed for 33 Nm	1850 rpm
Static brake holding torque	50 Nm
Average time for thermal shutdown	300 sec
Average time for automatic restart after thermal shutdown	200 sec
Typical dimensions	Ø215 x 130 mm
Approximately weight	25 kg

## Exploded view of a WindChill brake system



support housing

disc brake

thermal actuator with armature plate

brake housing

centrifugal brake rotor





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