DATA SHEET

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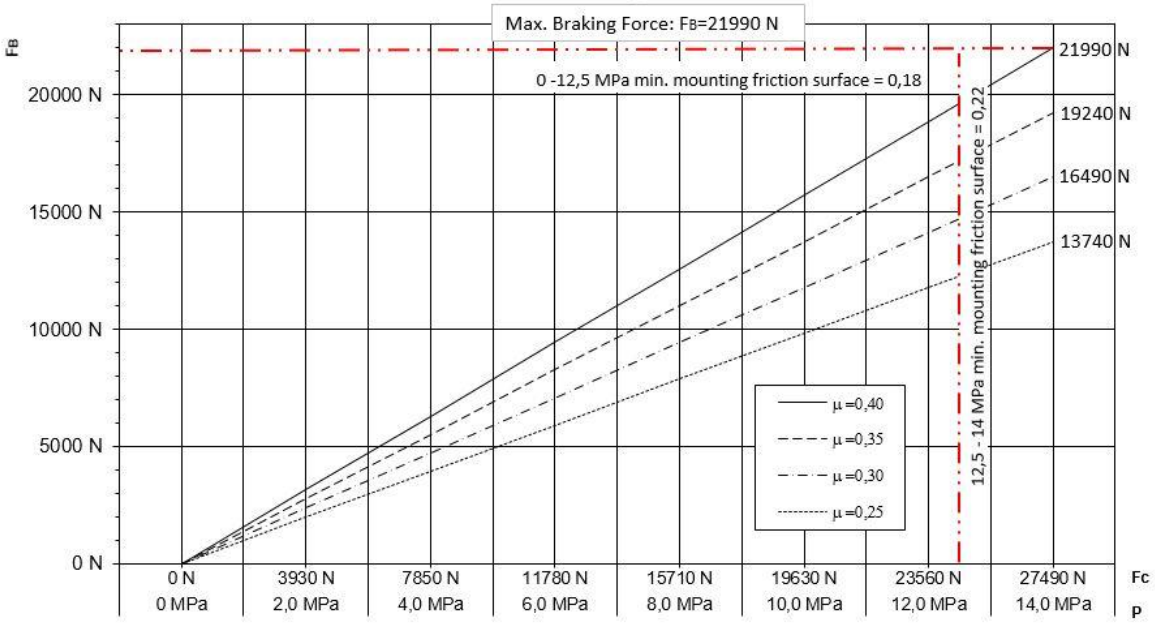
TECHNICAL DATA AND CALCULATION FUNDAMENTALS FOR DISC BRAKE BSAB 50-X-1XX (SIDE MOUNT M24)



μ = Nominal friction between brake pad material and brake disc.
F_B = Braking Force
F_C = Clamping force
P = Pressure

$$M_B = a \cdot F_B \cdot \frac{(D_O - 0{,}056)}{2} \ [Nm]$$

$$F_B = F_C \cdot 2 \cdot \mu \ [N] \qquad F_C = A \cdot P \cdot 100 \ [N]$$

Where:
a is the number of callipers acting on the disc
F_B is the braking force according to table above [N]
D_O is the disc outer diameter [m]
F_C is the clamping force [N]
A [cm^2], **P** [MPa] and **μ** see values below

The actual braking torque may vary, depending on friction coefficient.

BRAKE FUNDAMENTALS

Weight of calliper (incl. organic pads):	Approx. 11 kg
Overall dimensions WxHxD (approx):	154 x133 (+C) x130 mm
Pad width:	62 mm
Brake pad thickness for new pad (organic) :	14 mm
Pad area (organic):	7030 mm^2 (*)
Max. wear of pad (organic):	6mm (*) (=8mm thick)
Nominal coefficient of friction:	μ = 0.4
Total piston area - each caliper:	19,63 cm^2
Volume for each caliper at 1 mm stroke:	19,63 cm^3
Volume for each caliper at 3 mm stroke:	58,90 cm^3
Actuating time (guide value for calculation):	0.4 sec
Pressure connection/port:	G1/8
Drain connection port:	G1/8
Recommended pipe size:	8/6 mm
Max. operating pressure with $\mu_T \leq 0{,}18$	P= 12,5 MPa
Max. operating pressure with $\mu_T \geq 0{,}22$:	P= 14 MPa (μ_T is the friction between mounting surfaces)
Operating temperature range	
General usage:	-20°C to +70°C
For brake applications in wind turbines:	-40°C to +60°C

(C = Brake disc thickness)
(For temperatures outside this range contact Svendborg Brakes)
(*) On each brake pad - thickness stated is minimum thickness before replacement

RELEASED
by Soren.Ebsen