

Param.	value	meaning	reference
ν	10	Eq. (3) – relation between ice thickness and slope	Oerlemans (2001)
α	$1.70 \text{ m}^{1/2}$	Eq. (3) – calibrated to give observed surface height	Map, Norsk Polarinstitut
β	$0.0045 \text{ m w.e. a}^{-1} \text{ m}^{-1}$	balance gradient, observed on nearby glaciers	Oerlemans and Van Pelt (2015)
b_a	-175 m	“asymptotic” depth of fjord	Based on map Hansen (2014)
b_h	1100 m	note: $b_a + b_h$ is highest point of bed	Map, Norsk Polarinstitut
λ	$15\,000 \text{ m}$	calibrated to give observed water depth at front	Based on map Hansen (2014)
κ	0.4	ice thickness at front (fraction of H_m)	Oerlemans et al. (2011)
c	1.15 a^{-1}	calving parameter, as observed for Hansbreen	Oerlemans et al. (2011)
S_0	0.027 a^{-1}	calibrated with amplitude of 1991–1997 surge	Mansell et al. (2012)
t_s	8 a	calibrated with observed duration of 1991–1997 surge	Mansell et al. (2012)
$\partial E/dT$	35 m K^{-1}	based on energy-balance modelling	Van Pelt et al. (2012)
$\partial E/dP$	$-2.25 \text{ m } \%^{-1}$	based on energy-balance modelling	Van Pelt et al. (2012)
E_0	584 m	reference ELA for time < 1899, tuning parameter	tuning to length record
E_1	627 m	reference ELA for time > 1899, tuning parameter	tuning to length record