

Parameter	Name and physical meaning	Basin physical characteristics Classification	Calibrated parameters
T_0 ($\text{m}^2 \text{s}^{-1}$)	Saturated soil hydraulic conductivity	Clay area	1.938
		Sand area	1.421
		Silt area	1.424
m (m)	Decay factor of T_0	Clay area	0.099
		Sand area	0.299
		Silt area	0.2
S_{rmax} (m)	Maximum root zone capacity	Deep rooted area	0.029
		Shallow rooted area	0.021
		Shallow rooted and irrigated area	0.02
		Impervious area	0.004
S_{bar0} (m)	Initial value of the average soil saturation deficit	$0 \leq \lambda \leq 10$	0.288
		$11 \leq \lambda \leq 20$	0.798
		$21 \leq \lambda \leq 30$	0.166
		$31 \leq \lambda \leq 40$	0.155
n_0	Manning's rough coefficient	Stream network	0.004
		Building area	0.12
		Clay area	0.157
		Sand area	0.117
		Silt area	0.277

Notes: λ is the topographic index (Beven and Kirkby, 1979; Quinn et al., 1995).