

Category	Selected option
Horizontal resolution	12 and 4 km
Vertical resolution	53 layers (11 within the lowest 1 km)
Microphysics	Morrison double-moment scheme
Land surface	5-layer thermal diffusion
Shortwave radiation	Goddard shortwave
Longwave radiation	RRTMG scheme
Cumulus parameterization	Grell–Freitas scheme
Gas-phase chemistry	RACM-ESRL
Biogenic emission	MEGAN