

## Table A2 - Variable categories

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variable category	data_content	remarks
atmosphere dynamics*	dyn	combines atmosphere dynamics variables, e.g. air pressure, energy content, wind, momentum fluxes, etc.
atmospheric chemistry and meteorology	airmeteo	combines atmospheric chemistry and meteorological variables
atmospheric chemistry gas	airgas	combines atmospheric chemistry gas variables
atmospheric chemistry particles	airpm	combines atmospheric chemistry particle variables
atmospheric chemistry*	air	combines atmospheric chemistry and atmospheric chemistry particle variables
biometeorology	biometeo	combines biometeorological variables
carbon cycle*	carbon	combines carbon variables
cloud*	cloud	combines cloud variables
hydrology*	hydro	combines hydrological variables
meteorology	meteo	combines meteorological variables except atmospheric chemistry
PALM-4U 3d data	3d	
PALM-4U 3d data time averaged	3d_av	
PALM-4U chemistry input data	pidschem	background concentration and emission input data for the chemistry module
PALM-4U dynamic input data	pidsdynamic	physical input parameters that do change in time, e.g. lateral boundary conditions etc.
PALM-4U masked output data	podsmasked	output data for limited parts of the computational domain, from 3D-subdomains down to single grid point values
PALM-4U radiation input data	pidsrad	physical input parameters that are used in the radiation model, e.g. trace gas profiles
PALM-4U static input data	pidsstatic	physical input parameters, e.g. albedo, roughness, emissivity, heat conductivity, leaf area density, per grid point (x,y,z) that do not change in time
PALM-4U timeseries input data	pidsts	timeseries of selected model parameters and domain averaged quantities
PALM-4U vertical profile output data	podspr	vertical profiles averaged over the horizontal computational domain
PALM-4U vertical profile output data time averaged	podsprav	vertical profiles averaged over the horizontal computational domain, additionally averaged in time
PALM-4U xy sections	xy	
PALM-4U xy sections time averaged	xy_av	
PALM-4U xz sections	xz	
PALM-4U xz sections time averaged	xz_av	
PALM-4U yz sections	yz	
PALM-4U yz sections time averaged	yz_av	
radiation*	rad	combines radiation variables
soil	soil	combines soil variables
surface*	sfc	combines surface variables, e.g. surface albedo, surface heat fluxes, etc.
temperature	temp	combines temperature variables
volatile organic compounds	voc	combines volatile organic compounds
atmospheric soundings	atmsound	combines meteorological variables measured by atmospheric sounding devices, e.g. tethered balloons