Variables	Frequency	Aggregation	EUP_MPE1	EUP_MPE2	EUP_MPE3	EUP_MPE5	cases, sens.	Available in IPCC/DDC/ Universal/ Vorstland	Available in CFS, ref. reference	Available as EPICS	Comments
Air temperature	Daily	mean			CDIS, H1, Hp1, H2O, LEAC	ADJUSTOIS, B-HYPE, CDIAS, LF2ad, LF2ad, ALS, GLIEDS, MORDOR, ICS	VORTEX, EMIA	mean2tX	Derived (mean) map2m (8h)	tm	
Air temperature	Daily	minimum			T<-2°C, H1	CDIAS, LF2ad, ALS, GLIEDS, ADJUSTOIS, B-HYPE, ICS	ULIEDS	min2tX	tmin	tminm	
Air temperature	Daily	maximum			H, P48	CDIAS, LF2ad, ALS, GLIEDS, ADJUSTOIS, B-HYPE, MORDOR	ULIEDS, EMIA	max2tX	tmax	tmxmax	
Air temperature	Monthly	mean				ICS		mean2tXX	map2m	tm	
Precipitation	Daily	mean			CDP, H1p1	ADJUSTOIS, B-HYPE, CDIAS, LF2ad, ALS, GLIEDS, GLIAS, ADJUSTOIS, ICS	ULIEDS, ICS	tp	pmaw	pr	Accumulated or flux, weather preferred?
Precipitation	Monthly					ICS		tp	pmaw	pr	
Surface downwelling shortwave flux in air	Daily	mean				CDIAS, LF2ad, ALS, GLIAS, MORDOR	ULIEDS, EMIA, ICS	rsnf	dsw4h	rsds	
Surface downwelling longwave flux in air	Daily	mean				CDIAS, LF2ad, ALS		rlnf	dlw4h	rlds	
2-metre wind speed (at 10m)	Daily	mean					VORTEX, EMIA	10u (8h)	uvaw10m (8h)	uvm	
2-metre wind speed (at 10m)	Daily	mean					VORTEX, EMIA	10v (8h)	uvaw10m (8h)	uvm	
Wind speed (at 10m)	Daily	mean			FW	CDIAS, ALS, ADJUSTOIS, B-HYPE		Derived 10u (8h), 10v (8h)	Derived uvm (24h), uvx (24h)	Derived uvm (24h), uvx (24h)	
Wind speed (at 10m)	Daily	maximum				CDIAS, ALS		Derived 10u (8h), 10v (8h)	Derived uvm (24h), uvx (24h)	Derived uvm (24h), uvx (24h)	
Wind speed (at 10m)	Monthly	mean			CPU			Derived 10u (8h), 10v (8h)	Derived uvm (24h), uvx (24h)	Derived uvm (mon), uvx (mon)	
Temperature 850hPa	Daily	mean					VORTEX, EMIA	u850	Derived u850 (4h)	Proxy: ua850 (mon)	
2-metre temperature 850hPa (since noon)	Daily	mean					VORTEX	u850	ana850t0	Proxy: ua850 (mon)	
2-metre temperature 850hPa (since midnight)	Daily	mean					VORTEX	u850	ana850t0	Proxy: ua850 (mon)	
2-metre temperature 925hPa (since noon)	Daily	mean					VORTEX	u925	ana925t0	No.	
2-metre temperature 925hPa (since midnight)	Daily	mean					VORTEX	u925	ana925t0	No.	
Temperature height at 2000hPa	Daily	At 12 UTC	X			MORDOR		Derived u700 (12h)	geom700	No.	
Temperature height at 1000hPa	Daily	At 12 UTC	X			MORDOR		Derived u1000 (12h)	geom1000	No.	
Surface Pressure	Daily	mean				ADJUSTOIS		sm	sanlvl0	No.	
Sea level pressure	Daily	mean					VORTEX	msl	Proxy:pmsl0 (8h)	psl	
Dew point temperature	Daily	mean			LEAC	(B-HYPE)		2d	Proxy:tp2m (8h), map2m (8h), pmsl0 (8h)	dtps	
Total Snowfall	Monthly					ADJUSTOIS		mf	No.	snow	Monthly?
Snowfall flux	Daily	mean				GLIEDS, (B-HYPE)		sf	No.	psnw	
Water Evaporation from Soil	Daily					(GLIEDS)		e	No.	Evbw	Pbal.out if they include condensation
Water Evaporation from Soil	Monthly					GLIEDS, ADJUSTOIS		e	No.	Evbw	Pbal.out if they include condensation
Water Content of Soil Layer	Daily	mean				(GLIEDS)		Derived: swvl1, swvl2, swvl3, swvl4 (2d)	Proxy: wsdm1, wsdm2, wsdm3, wsdm4 (8h)	No.	Total?
Water Content of Soil Layer	Monthly					GLIEDS, ADJUSTOIS		Derived: swvl1, swvl2, swvl3, swvl4 (2d)	Proxy: wsdm1, wsdm2, wsdm3, wsdm4 (8h)	No.	Monthly?
Sea surface temperature	Daily	mean					VORTEX	sst	No.	Proxy: tsw (mon)	
Sub-surface runoff rate	Daily	mean				(ADJUSTOIS)		ssrd	No.	No.	According to Dominique Lacombe there are only monthly values, daily values are sent to Lacombe
Downward SW flux	Daily	mean					VORTEX, EMIA	u535	No.	No.	
Wind Gust	Daily	maximum				(GLIEDS)		10fg	No.	No.	
Precipitation	At noon	Accumulated in the last 24h		FW				No.	pmaw	pr	
Total Soil Moisture Content	Daily	mean				(ADJUSTOIS)		Proxy:wsdm1, wsdm2, wsdm3, wsdm4 (24h)	Derived: wsdm1, wsdm2, wsdm3, wsdm4(8h)	wmsc	
Surface air pressure	Daily	mean				GLIEDS, (B-HYPE)		Proxy:msl (6h)	pmsa0h	Proxy:psl (24h)	
Surface air pressure	Monthly					(ICS)		Proxy:msl (6h)	pmsa0h	Proxy:psl (24h)	
Specific humidity	Daily	mean				ADJUSTOIS, (B-HYPE)		No.	q2m	No.	
Moisture in Upper Portion of Soil Column	Monthly					(ADJUSTOIS)		Proxy:wsm3 (24h)	wsdm3	No.	What does Upper Portion mean? Monthly?
Surface downwelling longwave flux in air	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy: rslnd (24h)	rn, dmsqrdsdm3	No.	
Surface downwelling shortwave flux in air	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy: rsnd (24h)	rn, dmsqrdsdm3	No.	
Cloud area fraction	Daily	mean					EMIA	Proxy:tcc(8h)	No.	cll	
Air temperature	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy: 2t (6h)	Proxy: map2m (8h)	Proxy: tm (8h)	
Relative humidity	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy:2d (6h)	Proxy:tp2m, pmsa0 (24h)	Proxy:rdps (24h)	
Relative humidity	At noon (local time) standard time or daily mean	point		FW				Proxy:2d (6h)	Proxy:tp2m (8h), map2m (8h), pmsa0h (8h)	Proxy:rdps (24h)	
Relative humidity	Daily	mean			CDIAS, (B-HYPE)		Proxy:2d(6h)	Proxy:tp2m (8h), map2m (8h), pmsa0h (8h)	Proxy:rdps (24h)		
Wind speed (at 10m)	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy:10u (6h), 10v (6h)	Proxy:uvaw10m, uvx, uvaw10m, uvx	Proxy:uvm (24h), uvx (24h)	
Wind speed (at 10m)	At noon (local time) standard time	point		FW				Proxy:10u (6h), 10v (6h)	Proxy:uvaw10m, uvx, uvaw10m, uvx	Proxy:uvm (24h), uvx (24h)	
Cloudiness (in-oktas)	3h 7am, 3pm and 9pm (local time)	point		PET				Proxy:tcc (6h)	No.	Proxy: cll (24h)	
Relative humidity at 2000m	Daily	mean					VORTEX	Proxy:r (12h) ip (12h)	No.	No.	
Ozone	Daily	mean				(GLIEDS)		Proxy:O3, Ozone mass mixing ratio (24h), Proxy: tcc3, Total column ozone (24h)	No.	No.	5 weeks clarification
Site temperature	Daily	mean				Meteoswiss		No.	Proxy: mtpsb (8h)	No.	
Air temperature	At noon (local standard time	point		FW				No.	No.	No.	
1.5M Temperature over tiles	Daily	mean				(GLIEDS)		No.	No.	No.	
1.5M Temperature over tiles	Daily	maximum				(GLIEDS)		No.	No.	No.	
1.5M Temperature over tiles	Daily	minimum				(GLIEDS)		No.	No.	No.	
Precipitation	Hourly rate	maximum				GLIEDS		No.	No.	No.	
10-metre wind in compartment B grid	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
10-metre wind in compartment B grid	Monthly					ICS		No.	No.	No.	
10-metre wind in compartment B grid	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
10-metre wind in compartment B grid	Monthly					ICS		No.	No.	No.	
2-metre 10-metre wind speed	Daily	mean					VORTEX, EMIA, ICS	No.	No.	No.	
2-metre 10-metre wind speed	Daily	mean					VORTEX, EMIA, ICS	No.	No.	No.	
Surface snow amount	Daily	mean				GLIEDS		No.	No.	No.	
Surface roughness	Daily	mean			LEAC			No.	No.	No.	What does it refer to? Humidity? Water in soil?
Clear-sky (O) down surface SW flux	Daily	mean				ICS, (GLIEDS)		No.	No.	No.	What does (O) refer to?
Clear-sky (O) down surface SW flux	Monthly					ICS		No.	No.	No.	
Water evaporation flux	Daily	mean				B-HYPE		No.	No.	No.	
1.5M Specific humidity over tiles	Daily	mean				(GLIEDS)		No.	No.	No.	
Grabbe roughness	Daily	mean				(MeteoNew)		No.	No.	No.	This variable needs clarification
Net primary productivity	Daily	mean				(MeteoNew)		No.	No.	No.	What does it mean?
Net primary productivity pa (PFT)	Daily	mean				(MeteoNew)		No.	No.	No.	What does it mean?
Net down surface LW rad. flux (Surface energy balance)	Daily	mean				(GLIEDS)		No.	No.	No.	
Diffuse flux	Daily	mean				(GLIEDS)		No.	No.	No.	
Canopy Interceptedt water	Daily	mean				(ADJUSTOIS)		No.	No.	No.	
Temperature Tree Canopy	Daily	mean				(ADJUSTOIS)		No.	No.	No.	
Temperature Ice in tree canopy	Daily	mean				(ADJUSTOIS)		No.	No.	No.	
Temperature	Monthly					(ADJUSTOIS)		No.	No.	No.	Monthly? Monthly?
Soil Frozen Water Content	Monthly					(ADJUSTOIS)		No.	No.	No.	Monthly?
Total Radiation (Global Horizontal Radiation)	Daily	mean					ULIEDS, EMIA, ICS	No.	No.	No.	5 weeks clarification Horizontal?