Variables	Frequency	Aggregation	BUP_MPE1	BUP_MPE2	BUP_MPE3	BUP_MPE5	cmns, ems, s	Available in MYCORES/ Mycloud/ Nimbus	Available in CPL, at references	Available as EPICS	Comments
Air temperature	Daily	mean			CSSI, ms, Hp1, m30, LSDC	(SQUATCOS), (E-HYPE, CDWI, LF2ed, LF2ed, ALEIS, GLEIS), (MORDOR, ICS)	VORTEX, EMEA,	mean2CO3	temp2m	tav	
Air temperature	Daily	minimum			T< 2°C, ms	CDWI, (SQUATCOS), (E-HYPE), (LF2ed), (MORDOR)	ULEIDS	min2CO	tmin	tminm	
Air temperature	Daily	maximum			HL FWI	CDWI, (SQUATCOS), (E-HYPE), (LF2ed), (MORDOR)	ULEIDS, EMEA,	max2CO	tmax	tmxmax	
Air temperature	Monthly	mean				(ICS)		mean2CO3	temp2m	tav	
Precipitation	Daily	mean			CDP, Hp1	(SQUATCOS), (E-HYPE), CDWI, LF2ed, ALEIS, GLEIS, GLAM, (MORDOR), (ICS)	ULEIDS, ICS	tp	prcptn	pr	Accumulated or flux, variable in preference?
Precipitation	Monthly					(ICS)		tp	prcptn	pr	
Surface downwelling shortwave flux in air	Daily	mean				CDWI, LF2ed, ALEIS, GLAM, (MORDOR)	ULEIDS, EMEA, ICS	rsnd	dswrfs	rsds	
Surface downwelling longwave flux in air	Daily	mean				CDWI, LF2ed, ALEIS		rlnd	dlwrfs	rlds	
2-component Wind speed (at 10m)	Daily	mean					VORTEX, EMEA	10u (8h)	uvsum10m (8h)	uvs	
2-component Wind speed (at 10m)	Daily	mean					VORTEX, EMEA	10v (8h)	uvsum10m (8h)	uvs	
Wind speed (at 10m)	Daily	mean			FWI	CDWI, ms,m30, (SQUATCOS), (E-HYPE)		Derived 10u (8h), 10v (8h)	Derived uvsum10m (8h), uvs (24h)	Derived uvs (24h), uvs (24h)	
Wind speed (at 10m)	Daily	maximum				(SQUATCS)		Derived 10u (8h), 10v (8h)	Derived uvsum10m (8h), uvsum10m (8h)	Derived uvs (24h), uvs (24h)	
Wind speed (at 10m)	Monthly	mean			CPU			Derived 10u (8h), 10v (8h)	Derived uvsum10m (8h), uvsum10m (8h)	Derived uvs (mean), uvs (mean)	
2-component 850mb	Daily	mean					VORTEX, EMEA	u850	Derived u850 (4h)	Proxy: ua850 (mean)	
2-component 850mb Wind speed	Daily	mean					VORTEX	u850	ws850	Proxy: ua850 (mean)	
2-component 850mb wind speed	Daily	mean					VORTEX	u850	ws850	Proxy: ua850 (mean)	
2-component 925mb wind speed	Daily	mean					VORTEX	u925	ws925	No.	
2-component 925mb wind speed	Daily	mean					VORTEX	u925	ws925	No.	
Temperature height at 2000m	Daily	At 12 UTC	X			MORDOR		Derived t700 (12h)	gpm700	No.	
Temperature height at 2000m	Daily	At 12 UTC	X			MORDOR		Derived t700 (12h)	gpm1000	No.	
Surface Runoff	Daily	mean				(SQUATCOS)		sro	runoff	No.	
Sea level pressure	Daily	mean					VORTEX	msl	Proxy:prmsl (8h)	psl	
Dew point temperature	Daily	mean			LSDC	(E-HYPE)		2d	Proxy:tp2m (8h), temp2m (8h), prmsl (8h)	dtps	
Total Runoff	Monthly					(SQUATCOS)		mrro	No.	mrro	Monthly?
Snowfall flux	Daily	mean				GLEIS, (E-HYPE)		sf	No.	prsn	
Water Evaporation from Soil	Daily					(GLEIS)		e	No.	Evbse	Pbal.out if they include transpiration
Water Evaporation from Soil	Monthly					GLEIS, (SQUATCOS)		e	No.	Evbse	Pbal.out if they include transpiration
Water Content of Soil Layer	Daily	mean				(GLEIS)		Derived: swvl1, swvl2, swvl3, swvl4 (2d)	Proxy: sm0cm1, sm0cm2, sm0cm3, sm0cm4 (8h)	No.	Total?
Water Content of Soil Layer	Monthly					GLEIS, (SQUATCOS)		Derived: swvl1, swvl2, swvl3, swvl4 (2d)	Proxy: sm0cm1, sm0cm2, sm0cm3, sm0cm4 (8h)	No.	Monthly?
Sea surface temperature	Daily	mean					VORTEX	sst	No.	Proxy: tos (mean)	
Sub-surface runoff rate	Daily	mean				(SQUATCOS)		ssrd	No.	No.	According to Copernicus documentation this is not only subsurface runoff, only solid and solid is missing
Downward SWrad	Daily	mean					VORTEX, EMEA	ssfdn	No.	No.	
Wind Gust	Daily	maximum				(GLEIS)		10fg	No.	No.	
Precipitation	At noon	Accumulated in the last one hour		FWI				tp	prcptn	pr	
Total Soil Moisture Content	Daily	mean				(SQUATCOS)		Proxy:swvl1, swvl2, swvl3, swvl4 (24h)	Derived: sm0cm1, sm0cm2, sm0cm3, sm0cm4(8h)	mrsos	
Surface air pressure	Daily	mean				GLEIS, (E-HYPE)		Proxy:msl (6h)	Proxy:msl (8h)	Proxy:psl (24h)	
Surface air pressure	Monthly					(ICS)		Proxy:msl (6h)	prmsl6h	Proxy:psl (24h)	
Specific humidity	Daily	mean				m30, (SQUATCOS), (E-HYPE), (LF2ed)		No.	q2m	No.	
Moisture in Upper Portion of Soil Column	Monthly					(SQUATCOS)		Proxy:swvl1 (24h)	sm0cm1	No.	What does Upper Portion mean? Monthly?
Surface downwelling longwave flux in air	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy: rlnd (24h)	rlnd, timeyyyymmdd	No.	
Surface downwelling shortwave flux in air	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy: rsnd (24h)	rsnd, timeyyyymmdd	No.	
Cloud area fraction	Daily	mean					EMEA	Proxy:tcc(8h)	No.	clt	
Air temperature	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy: 2t (6h)	Proxy: tmp2m (8h)	Proxy: tas (8h)	
Relative humidity	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy:2d (6h)	Proxy:tp2m, prmsl (8h)	Proxy:rldps (24h)	
Relative humidity	At noon (local time) standard time or daily mean	point		FWI				Proxy:2d (6h)	Proxy:tp2m, tmp2m (8h), prmsl6h (8h)	Proxy:rldps (24h)	
Relative humidity	Daily	mean			CDWI, (E-HYPE)		Proxy:2d(6h)	Proxy:tp2m (8h), tmp2m (8h), prmsl6h (8h)	Proxy:tp2m, tmp2m (8h), prmsl6h (8h)	Proxy:rldps (24h)	
Wind speed (at 10m)	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy:10u (8h), 10v (8h)	Proxy:uvsum10m, uvs, u,v,mm,hh	Proxy:uvs (24h), uvs (24h)	
Wind speed (at 10m)	At noon (local time) standard time	point		FWI				Proxy:10u (8h), 10v (8h)	Proxy:uvsum10m, uvs, u,v,mm,hh	Proxy:uvs (24h), uvs (24h)	
Cloudiness (in octas)	At 7am, 2pm and 9pm (local time)	point		FWI				Proxy:tcc (8h)	No.	Proxy: clt (24h)	
Relative humidity at 2000mb	Daily	mean					VORTEX	Proxy:r 1,2,3(p) ig (12h)	No.	No.	
Ozone	Daily	mean				(GLEIS)		Proxy:O3, Ozone mass mixing ratio (8h), Total column ozone (24h)	No.	No.	5 weeks clarification
Site temperature	Daily	mean				Meteoroids		No.	Proxy: mtpots (8h)	No.	
Air temperature	At noon local standard time	point		FWI				No.	No.	No.	
1.5M Temperature over tiles	Daily	mean				(GLEIS)		No.	No.	No.	
1.5M Temperature over tiles	Daily	maximum				(GLEIS)		No.	No.	No.	
1.5M Temperature over tiles	Daily	minimum				(GLEIS)		No.	No.	No.	
Precipitation	Hourly rate	maximum				GLEIS		No.	No.	No.	
10 metre wind in component E grid	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
10 metre wind in component E grid	Monthly					ICS		No.	No.	No.	
10 metre wind in component E grid	Daily	mean				ICS, (MORDOR)		No.	No.	No.	
10 metre wind in component E grid	Monthly					ICS		No.	No.	No.	
2-component 10 metre wind speed	Daily	mean					VORTEX, EMEA, ICS	No.	No.	No.	
2-component 10 metre wind speed	Daily	mean					VORTEX, EMEA, ICS	No.	No.	No.	
Surface snow thickness	Daily	mean				GLEIS		No.	No.	No.	
Surface roughness	Daily	mean			LSDC			No.	No.	No.	What does it refer to? Humidity? Water in soil?
Clear sky (O) down surface SW flux	Daily	mean				ICS, (GLEIS)		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				E-HYPE		No.	No.	No.	
1.5M Specific humidity over tiles	Daily	mean				(GLEIS)		No.	No.	No.	
Grafice coefficie	Daily	mean				(MeteoRes)		No.	No.	No.	This variable needs clarification
Net primary productivity	Daily	mean				(MeteoRes)		No.	No.	No.	What does it mean?
Net primary productivity pa (PFT3)	Daily	mean				(MeteoRes)		No.	No.	No.	What does it mean?
Net down surface LW rad flux (surface net upward longwave rad)	Daily	mean				(GLEIS)		No.	No.	No.	
Diffuse flux	Daily	mean				(GLEIS)		No.	No.	No.	
Canopy Interceptioll rate	Daily	mean				(SQUATCOS)		No.	No.	No.	
Temperature from Canopy	Daily	mean				(SQUATCOS)		No.	No.	No.	
Temperature in a new layer	Daily	mean				(SQUATCOS)		No.	No.	No.	
Temperature	Monthly					(SQUATCOS)		No.	No.	No.	Monthly? Monthly?
Soil Frozen Water Content	Monthly					(SQUATCOS)		No.	No.	No.	Monthly?
Total Radiation (Global Horizontal Radiation)	Daily	mean					ULEIDS, EMEA, ICS	No.	No.	No.	5 weeks clarification Horizontal?