

Meta-data

Quality control and process flags

- **Good data: flag divisible by 10**
- **QA/QC flags:**

0: Good data	1: No data	2: L2 RangeCheck	3: L2 DiurnalCheck
	4: CSAT Diagnostic	5: LI7500 Diagnostic	6: exclude dates
	7: exclude hours	8: albedo $F_{sd} < \text{threshold}$	9: albedo time flag
- **Corrections & QA/QC flags:**

10: Linear	[11: Rotation]	[12: Massman]	[13: Virtual F_H]
	[14: WPL]	15: TafromTv	16: L3 RangeCheck
	17: L3 DiurnalCheck	18: u^* filter	19: Gap co-ordination
	21: Data-flag mismatch	22: $L = 0$ in $\zeta = z/L$	
- **Gap-filling flags:**

30: Gap filled by ANN	31: Gap not filled		
40: Gap filled from one-minute average			
50: Gap filled from alternate			
60: Gap filled by interpolation			
70: Gap filled by replacement from paired tower			

80: u^* from F_H	81: u^* not from F_H	82: L4 RangeCheck	83: L4 DiurnalCheck
		84: L5 RangeCheck	85: L5 DiurnalCheck
		86: L6 RangeCheck	87: L6 DiurnalCheck

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Process flags

- **Carbon partitioning flags:**
 - 90: night ER from Q_{10}
 - 100: Day ER from light response curve or NEE_{max}
 - 110: ER, GPP & PD day/night mask
 - 120: Day $F_c = ER$
 - 130: ER_{dark sink} (+NEP)
 - 140: ER_{dark source} (+NEE)
 - 150: PD, ER_{day} & GPP from conditional correlation
 - 151: no CC solution
- **Footprint flags:**
 - 161: Date filter
 - 162: no solution
- **Penman-Monteith inversion flags:**
 - 171: $r_{st} < 0$
 - 172: $F_e < \text{threshold}$
 - 173: $F_{sd} < \text{threshold}$
 - 174: $U = 0$
- **Penman-Monteith aerodynamic resistance flags:**
 - 180: rav_{base} short circuit (rav_{top} good)
 - 190: rav_{top} short circuit (rav_{base} good)
 - 191: rav_{top} not short circuit (rav_{base} bad)
 - 200: parallel circuit (rav_{full} and rav_{top} good)
 - 201: not parallel circuit (rav_{full} short-circuit)
- **Bulk Richardson number flags:**
 - 211: $\Delta U = 0$ (RiB infinite)