

QUANTITATIF DES EQUIPEMENTS

| | R+4 | R+3 | R+2 | R+1 | RDC | total equip | |
|----------------|-----|-----|-----|-----|-----|-------------|----|
| ADMINISTRATION | | | | | | | |
| CTA | | | 4 | 9 | | 2 | 15 |
| BAT TERM | | 2 | 15 | 6 | 8 | 26 | 57 |
| UTA | | | | | 10 | 10 | 20 |
| VC K7 | | 1 | 1 | 38 | 45 | 14 | 99 |
| AERO | | | | | | 4 | 4 |
| PROD CHAUD | | 1 | | | | | |
| PROD FROID | | 1 | | | | | |
| | | | | | | | |
| PT GTB | | 2 | 2 | 3 | 3 | | 10 |
| ARM CLIM | | | 3 | 6 | 2 | 3 | 14 |
| REPORT | | | | | | 4 | 4 |

| | R+4 | R+3 | R+2 | R+1 | RDC | total equip |
|-----------|-----|-----|-----|-----------|-----|-------------|
| | | | | RECHERCHE | | |
| CTA | | | 13 | 11 | | 26 |
| BAT TERM | | | | 4 | 28 | 73 |
| UTA | | | | 4 | 8 | 26 |
| VC K7 | | | | 140 | 91 | 256 |
| AERO | | | | | | 33 |
| CHAUFF | | | 1 | | | 1 |
| EDR | | | 1 | | | 1 |
| PT GTB | | | 2 | 10 | 14 | 97 |
| ARM CLIM | | | | | | 24 |
| GF | | | 1 | | | 1 |
| MODUS RTU | | 2 | | | | 4 |

| | |
|------------|---|
| PROD CHAUD | 1 |
| PROD FROID | 1 |

| TOTAL GENERAL | | type régu | existant | Action | protocole futur | | système HONEYWELL | |
|---------------|-----|------------|-----------|--------------|-----------------|--------|-------------------|-----|
| CTA | 41 | automate | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| BAT TERM | 130 | régulateur | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| UTA | 46 | régulateur | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| VC K7 | 355 | régulateur | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| AERO | 37 | régulateur | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| CHAUFFERIE | 1 | automate | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| EDR | 1 | automate | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| PT GTB | 107 | automate | HONEYWELL | remplacement | Ethernet | Modbus | Bus | LON |
| ARM CLIM | 38 | régulateur | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |

| | | | | | | | | |
|-----------------------|---|-----------------|---------------|----------------|----------|--------|-----|-----------|
| REPORT | 4 | automate | HONEYWELL | remplacement | Ethernet | Modbus | Bus | LON |
| PRODUCTION GF | 1 | automate | HONEYWELL | remplacement | Ethernet | Bacnet | Bus | LON |
| GROUPE FROID | 4 | automate | existant | conservé | Ethernet | Bacnet | Bus | LON |
| GROUPE ELECTROGENE | 1 | automate | existant | conservé | RTU | Modbus | | |
| MODUS RTU GE | 1 | automate | existant | remplacement | Ethernet | Bacnet | | |
| MODUS RTU ASI LEGRAND | 1 | automate | existant | remplacement | Ethernet | Bacnet | | |
| COMPTAGE ENEDIS | 4 | TIC | Lora | conservé | RTU | Modbus | | |
| COMPTAGE GAZ | 0 | Lora | | conservé | Lora | | | |
| COMPTAGE FLUIDE | 0 | compteur | origine | conservé | RTU | Mbus | LON | HONEYWELL |
| COMPTAGE FLUIDE | 0 | compteur | plan comptage | conservé | RTU | Mbus | | |
| COMPTAGE ELEC | 0 | compteur | origine | conservé | RTU | Modbus | | |
| COMPTAGE ELEC | 0 | compteur | plan comptage | conservé | Ethernet | Modbus | | |
| COMPTAGE EAU POTABLE | 0 | compteur | plan comptage | conservé | Lora | Modbus | | |
| PASSERELLE LORA | 1 | passerelle | plan comptage | conservé | Ethernet | Modbus | | |
| BILAN DES COMPTEURS | | | | | | | | |
| énergie chaud | | | 27 | | | | | |
| energie froid | | | 21 | | | | | |
| eau | | | 6 | | | | | |
| électricité | | | 32 | | | | | |
| compteur Lora | | Lora | 40 | ENSIACET + INP | | | | |
| compteur électricité | | Modbus Ethernet | 173 | ENSIACET + INP | | | | |
| compteur électricité | | Modbus Ethernet | 11 | LAPLACE | | | | |
| compteur fluide | | Mbus | 10 | ENSIACET + INP | | | | |

type entrées

| armoires automatées 0-10V régulation | | | | | type entrées | | | | | config type | config type | e/s | | |
|--------------------------------------|----|----|----------|----------------|-------------------|---------------|-------------|-------------|------------------|-------------|-------------|-----|----|----|
| ARMOIRE CTA | | | AUTOMATE | | TR AO TR 0-10V | TC DO - TC | TA DI TA | TS DI TS | TM AI NTC 20K | Total E/s | | A | 0 | 16 |
| CTA | RC | 5 | CTA | 21 | 6 | 6 | 6 | 3 | 6 | 27 | C | B | 16 | 24 |
| CTA | RC | 5b | CTA | 50 | 1 | 1 | 3 | 2 | 2 | 9 | A | C | 24 | 32 |
| CTA | RC | 3 | CTA | 27 | 5 | 1 | 4 | 2 | 5 | 17 | C | D | 32 | 48 |
| CTA | RC | 3 | CTA | 5 | | | | | | 0 | | E | 48 | 56 |
| CTA | R2 | 8 | CTA | 16 | 3 | 3 | 4 | 4 | 5 | 19 | B | | | |
| CTA | R2 | 8 | CTA | 19 | 6 | 6 | 13 | 10 | 5 | 40 | D | | | |
| CTA | R2 | 8 | CTA | 20 | 5 | 5 | 8 | 5 | 5 | 28 | C | | | |
| CTA | R2 | 8 | CTA | 36 | 5 | 5 | 6 | 5 | 6 | 27 | C | | | |
| CTA | R2 | 8B | CTA | 37 | 2 | 2 | 3 | 3 | 3 | 13 | A | | | |
| CTA | R2 | 6 | CTA | 17 | 8 | 8 | 9 | 6 | 7 | 38 | D | | | |
| CTA | R2 | 6 | CTA | 33 | 4 | 4 | 6 | 4 | 4 | 22 | B | | | |
| CTA | R2 | 6 | CTA | 35 | 5 | 9 | 10 | 5 | 9 | 38 | D | | | |
| CTA | R2 | 6 | CTA | 43 | 2 | 1 | 3 | 4 | 2 | 12 | A | | | |
| CTA | R2 | 5 | CTA | 8 ENS | 5 | 1 | 4 | 0 | 5 | 15 | A | | | |
| CTA | R2 | 5 | CTA | 30 | 5 | 1 | 4 | 0 | 5 | 15 | A | | | |
| CTA | R2 | 4 | CTA | 7 ENS | 5 | 2 | 4 | 1 | 5 | 17 | B | | | |
| CTA | R2 | 4 | CTA | 31 | 5 | 1 | 4 | 0 | 5 | 15 | A | | | |
| CTA | R2 | 4 | CTA | 34 | 5 | 1 | 5 | 2 | 5 | 18 | B | | | |
| CTA | R2 | 2 | CTA | 1 ENS | 3 | 3 | 6 | 5 | 3 | 20 | B | | | |
| CTA | R2 | 2 | CTA | 2 | 4 | 3 | 3 | 3 | 6 | 19 | B | | | |
| CTA | R2 | 2 | CTA | 3 | 3 | 3 | 7 | 6 | 3 | 22 | B | | | |
| CTA | R2 | 2 | CTA | 28 | 4 | 4 | 5 | 6 | 4 | 23 | B | | | |
| CTA | R3 | 3 | CTA | 29 ENS | 1 | 1 | 2 | 2 | 2 | 8 | A | | | |
| CTA | R3 | 3 | CTA | 42 | 3 | 4 | 5 | 4 | 4 | 20 | B | | | |
| CTA | R3 | 3 | CTA | 46 | 5 | 4 | 5 | 4 | 5 | 23 | B | | | |
| CTA | R3 | 3 | CTA | 47 | 5 | 4 | 5 | 6 | 5 | 25 | C | | | |
| CTA | R3 | 1 | RECH | | | | | | | 0 | | | | |
| CTA | R3 | 2 | RECH | | | | | | | 0 | | | | |
| CTA | R3 | 4 | CTA | 22 RECH | 5 | 5 | 7 | 6 | 6 | 29 | C | | | |
| CTA | R3 | 4 | CTA | 24 | 5 | 5 | 9 | 4 | 5 | 28 | C | | | |
| CTA | R3 | 4 | CTA | 40 | 3 | 3 | 4 | 4 | 4 | 18 | B | | | |
| CTA | R3 | 5 | CTA | 23 RECH | 3 | 3 | 4 | 2 | 5 | 17 | B | | | |
| CTA | R3 | 5 | CTA | 39 | | | | | | 0 | | | | |
| CTA | R3 | 6 | CTA | 10 RECH | 3 | 3 | 7 | 6 | 3 | 22 | B | | | |
| CTA | R3 | 6 | CTA | 12 | 2 | 1 | 3 | 2 | 3 | 11 | A | | | |
| CTA | R3 | 6 | CTA | 15 | 2 | 2 | 3 | 2 | 2 | 11 | A | | | |
| CTA | R3 | 6 | CTA | 38 | 19 | 9 | 7 | 5 | 14 | 54 | E | | | |
| CTA | R3 | 8 | CTA | 9 RECH | 3 | 3 | 4 | 5 | 4 | 19 | B | | | |
| CTA | R3 | 8 | CTA | 11 | 7 | 7 | 9 | 3 | 8 | 34 | D | | | |
| CTA | R3 | 8 | CTA | 13 | 5 | 4 | 7 | 4 | 6 | 26 | C | | | |
| CTA | R3 | 8 | CTA | 18 | 4 | 5 | 8 | 4 | 6 | 27 | C | | | |
| CTA | R3 | 8 | CTA | 44 | 0 | 1 | 0 | 2 | 0 | 3 | A | | | |
| CTA | R3 | 3 | RAD | 1 | 1 | 2 | 2 | 2 | 3 | 10 | A | | | |
| CHAUF | | | CHAU | 1 | 1 | 3 | 8 | 9 | 2 | 23 | B | | | |
| | | | 40 | qté d'automate | | | | | | 0 | | | | |
| | | | 41 | qté CTA | | | | | | | | | | |

| bilan des automates ELEC GTC | | | | | | | nombre de carte | | | | | | | | | |
|------------------------------|----|---|--------------|----|---|--------------------|----------------------|-------|----------------------|-------|----|---------|-------------------|---------|-------------------|--|
| | | | | | | | entrée TOR existante | | sortie TOR existante | | | | entrée TOR future | | sortie TOR future | |
| | | | | | | | | | | | | | | | | |
| ARMOIRE GTC | | | NOM AUTOMATE | | | localisation | 12 | total | 6 | total | 16 | entrées | 8 | sorties | | |
| GTC | R0 | 1 | GTC | R0 | 1 | HO TRA/HO GE | 19 | 228 | 0 | 0 | 15 | 240 | 1 | 8 | | |
| GTC | R0 | 2 | GTC | R0 | 2 | HO TGBT 01 | 25 | 300 | 2 | 12 | 19 | 304 | 2 | 16 | | |
| GTC | R0 | 3 | GTC | R0 | 3 | local sécurité RDC | 2 | 24 | 1 | 6 | 2 | 32 | 2 | 16 | | |
| GTC | R0 | 4 | GTC | R0 | 4 | LO LT03 | 2 | 24 | 1 | 6 | 2 | 32 | 1 | 8 | | |
| GTC | R0 | 5 | GTC | R0 | 5 | LO LT02 CIRC01 | 7 | 84 | 1 | 6 | 6 | 96 | 1 | 8 | | |
| GTC | R1 | 1 | GTC | R1 | 1 | L1 LT01 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R1 | 3 | GTC | R1 | 3 | H1 LT02 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R1 | 4 | GTC | R1 | 4 | LT C FORT | 1 | 12 | 2 | 12 | 1 | 16 | 2 | 16 | | |
| GTC | R1 | 2 | GTC | R1 | 2 | E1 LT02 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R1 | 0 | GTC | R1 | 0 | E1 LT01 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R2 | 3 | GTC | R2 | 3 | L2 LT5 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R2 | 1 | GTC | R2 | 1 | L2 LT2 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R2 | 2 | GTC | R2 | 2 | L2 LT1 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R2 | 0 | GTC | R2 | 0 | E2 LT02 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R3 | 0 | GTC | R3 | 0 | E3 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |
| GTC | R3 | 1 | GTC | R3 | 1 | LT OUVERT | 2 | 24 | 0 | 0 | 2 | 32 | 0 | 0 | | |
| GTC | R4 | 0 | GTC | R4 | 0 | E4 LT2 | 1 | 12 | 1 | 6 | 1 | 16 | 1 | 8 | | |

17 qté d'automate

| Bilan armoire de climatisation indépendante | | | | | sondes thermique + CO2 | défaut AC | pression |
|--|-----|-----|--------------------|----------|------------------------|-----------|----------|
| AC | ENS | R+1 | salle info AC | ED21 | 1 | 1 | |
| AC | ENS | R+2 | salle des machine | VE43 | 1 | 1 | |
| AC | REC | RDC | analyse | RD360 | 1 | 1 | |
| | REC | RDC | essais | RD242 | 1 | 1 | |
| | REC | RDC | obs | RD330 | 1 | 1 | |
| | REC | RDC | essais traction | rd234 | 1 | 2 | |
| | REC | RDC | essais therm cd | RD240 | 1 | 1 | |
| | REC | RDC | local thermique | RD245 | 1 | 1 | |
| | REC | RDC | salle XRD | RD370 | 1 | 2 | |
| | REC | RDC | salle CAMO | RA 231,2 | 1 | 1 | 1 |
| | REC | RDC | labo carac produit | RA250 | 2 | 4 | 1 |
| | REC | RDC | labo ope non stand | RA252 | 1 | 1 | 1 |
| | REC | RDC | labo MEB | RA251 | 1 | 1 | 1 |
| | REC | RDC | salle RMN | RA213,3 | 1 | 1 | |
| | REC | RDC | MEB 3 | RD302,3 | 1 | 1 | |
| | REC | RDC | essais therm LD | RD241 | 1 | 1 | |
| | REC | RDC | MEB 1 | RD302,1 | 1 | 1 | |
| | | | MEB 2 | RD302,2 | 1 | 1 | |
| TOTAUX | | | | | 19 | 23 | 4 |

Bilan des capteurs spécifiques et informations

| | |
|---|----|
| sondes thermique + CO 2 complémentaires | 19 |
| contact de défaut TOR | 23 |
| contact de sonde de pression hors plage locaux avec | 4 |