



MICRO POWER PACKS

3G



CONTENTS.**- SALES ORGANISATION****- DUTY TYPES****DIRECT CURRENT MOTORS****- PROTECTION and TIGHTNESS
of the DIRECT CURRENT****- Technological Composition****- MOTORS MF 1 - MF 2 0,4 kW
Dimensions
Curve
Characteristics****- MOTOR HF 2 1 kW
Dimensions
Curves
Characteristics****- MOTOR AF 1 0,9 kW
AF 2 1,2 kW
Dimensions
Curve
Characteristics****- CODING CHART****- ACCESSOIRES**

- Adjustable relief valve
- Compensated flow
limitor on ports 21 or 31

- Flow restrictor on port 3

- Compensated flow
limitor on port 3

- Check valve

- **FIXING POSITIONS**
Direct and alternating
current of Micro power
packs

SALES ORGANISATION.

| | | | | | |
|---|--|---|---|--|---|
| | <p>JAPAN JAPON JAPON</p>  | <p>FRANCE FRANCE FRANKREICH</p>  | <p>CANADA CANADA KANADA</p>  | <p>U.S.A ETATS - UNIS U.S.A</p>  | |
| <p>UNITED KINGDOM ROYAUME UNI GROßBRITANIEN</p>  |  | | | | <p>SWEDEN SUEDE SCHWEDEN</p>  |
| <p>SPAIN ESPAGNE SPANIEN</p>  | | | | | <p>DENMARK DANEMARK DjNEMARK</p>  |
| <p>BELGIUM BELGIQUE BELGIEN</p>  | | | | | <p>FINLAND FINLANDE FINLAND</p>  |
| <p>NETHERLANDS PAYS - BAS NIEDERLANDE</p>  | | | | | <p>NORWAY NORVEGE NORWEGEN</p>  |
| <p>SWITZERLAND SUISSE SCHWEIZ</p>  | | | | | <p>AUSTRALIA AUSTRALIE AUSTRALIEN</p>  |
| <p>AUSTRIA AUTRICHE öSTERREICH</p>  | | | | | <p>NEW - ZEALAND NOUVELLE - ZELANDE NEUSELAND</p>  |
| <p>HUNGARY HONGRIE HUNGARN</p>  | | | | | <p>ITALY ITALIE ITALIEN</p>  |
| <p>CHINA CHINE CHINESISCHES</p>  | <p>INDIA INDE INDIEN</p>  | <p>EGYPT EGYPTE EGYPTEN</p>  | <p>TURKEY TURQUIE TürKEI</p>  | <p>GREECE GRECE GRIECHENLAND</p>  | |

2004

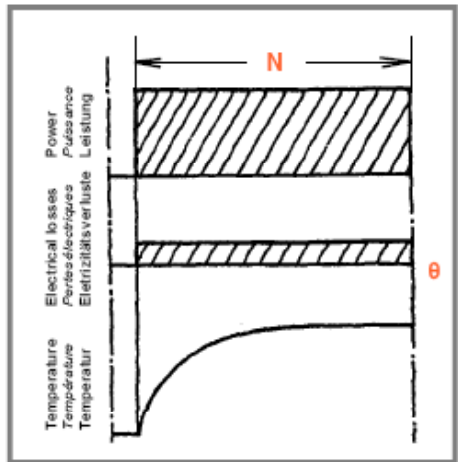
MICRO POWER PACKS.

**DUTY TYPES
DIRECT CURRENT
MOTORS**

**S1
Continuous Duty**

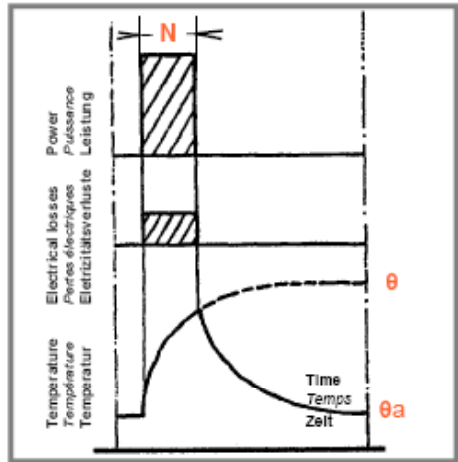
Duty type consisting of working at a constant load during a certain time long enough to reach the thermal equilibrium.

Representative chart



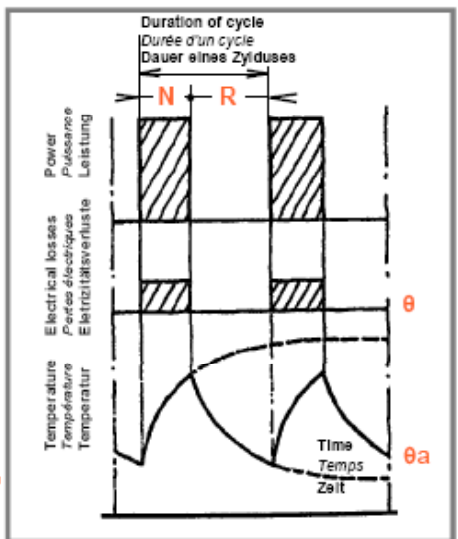
**S2
Temporary Duties**

Duty types consisting of working at constant load during a determined period shorter than the one necessary for reaching the thermal equilibrium, followed by a rest the duration of which should be long enough to reach the same temperature as the cooling medium.



**S3
Periodical intermittent
Duties**

Types of duties consisting of a series of identical cycles each of them including a working time at constant load and a rest time, the durations being not sufficient for reaching the thermal equilibrium during the heating periods as well as the cooling periods.



- Legend:**
- N: Working at nom. load
 - R: Rest
 - D: Starting
 - θ: Temperature during Continuous Duty
 - θa: Temperature of cooling medium



MICRO POWER PACKS.

**DUTY TYPES
DIRECT CURRENT MOTORS**

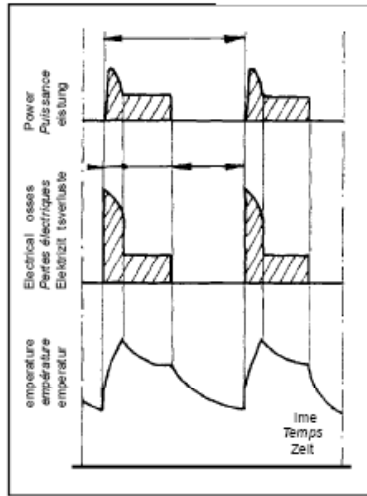
S4

Intermittent starting Duties

Types of duties consisting of a series of identical cycles each of them including a starting time a working time at constant load and a rest time. The working time and the rest time are short enough not to reach the thermal equilibrium during a cycle.

In these duties the motor stops either due to the natural slowing-down after switching off or by means of a brake such as a mechanical brake which does not cause complementary heating-up of the coils.

Representative chart

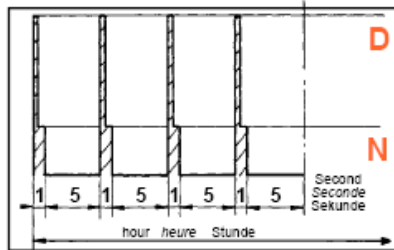


S4a

Specific Duties

Determines the number of startings per hour according to the S cycle here after mentioned

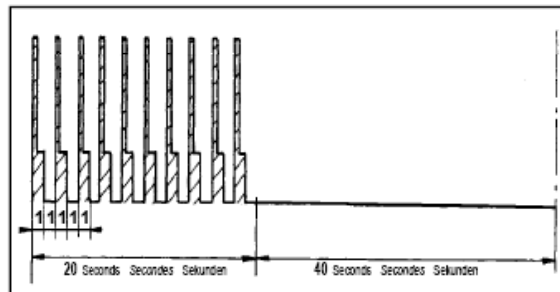
- second of working time
- seconds of rest time.



S4b

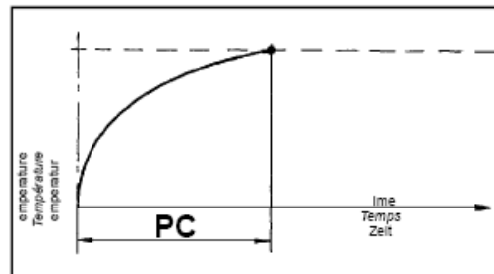
Determines the number of startings per hour according to the S cycle here after mentioned

- second of working time
- second of rest time during seconds
- seconds of rest time.



PC

Critical moment at permanent functioning S under load in minutes before destruction.



Legend :

- N Working at nom. load
- R Rest
- D Starting
- ⊙ Temperature during Continuous Duty
- ⊙a Temperature of cooling medium

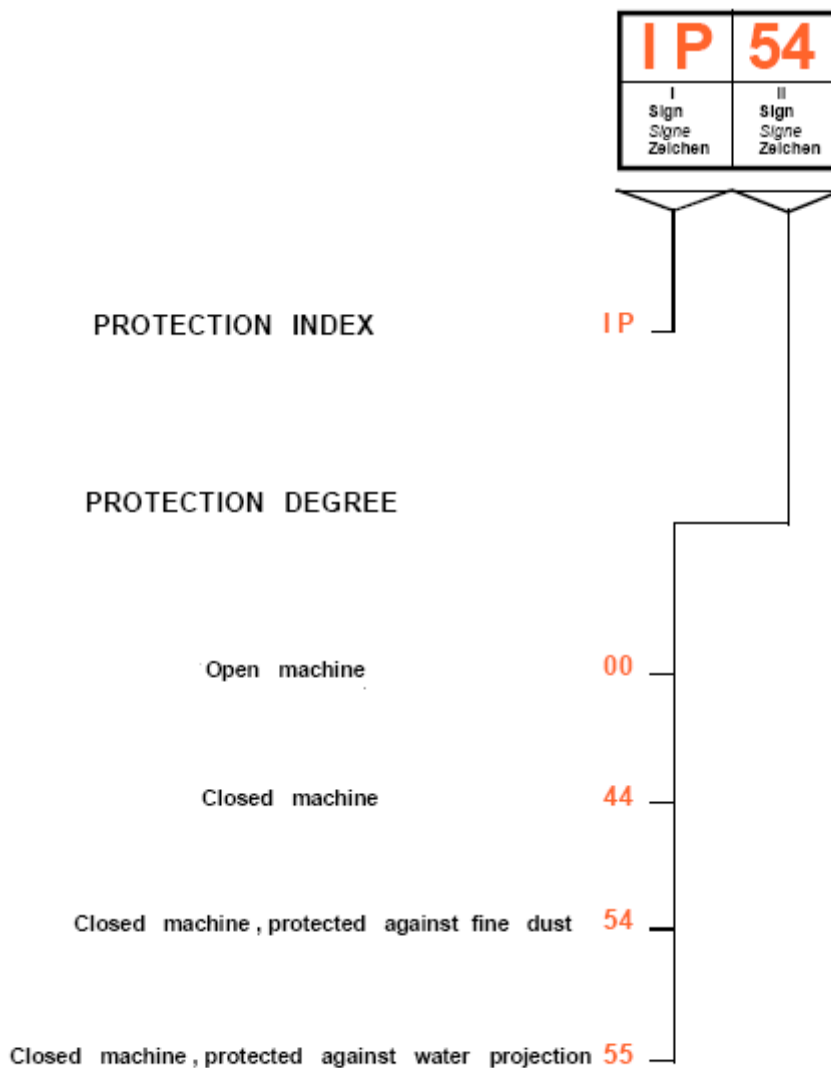
Documentation :
French Standards NFC 51 111
German Standards VDE 530-1



MICRO POWER PACKS.

PROTECTION and TIGHTNESS of the DIRECT CURRENT and ALTERNATIVE CURRENT MOTORS

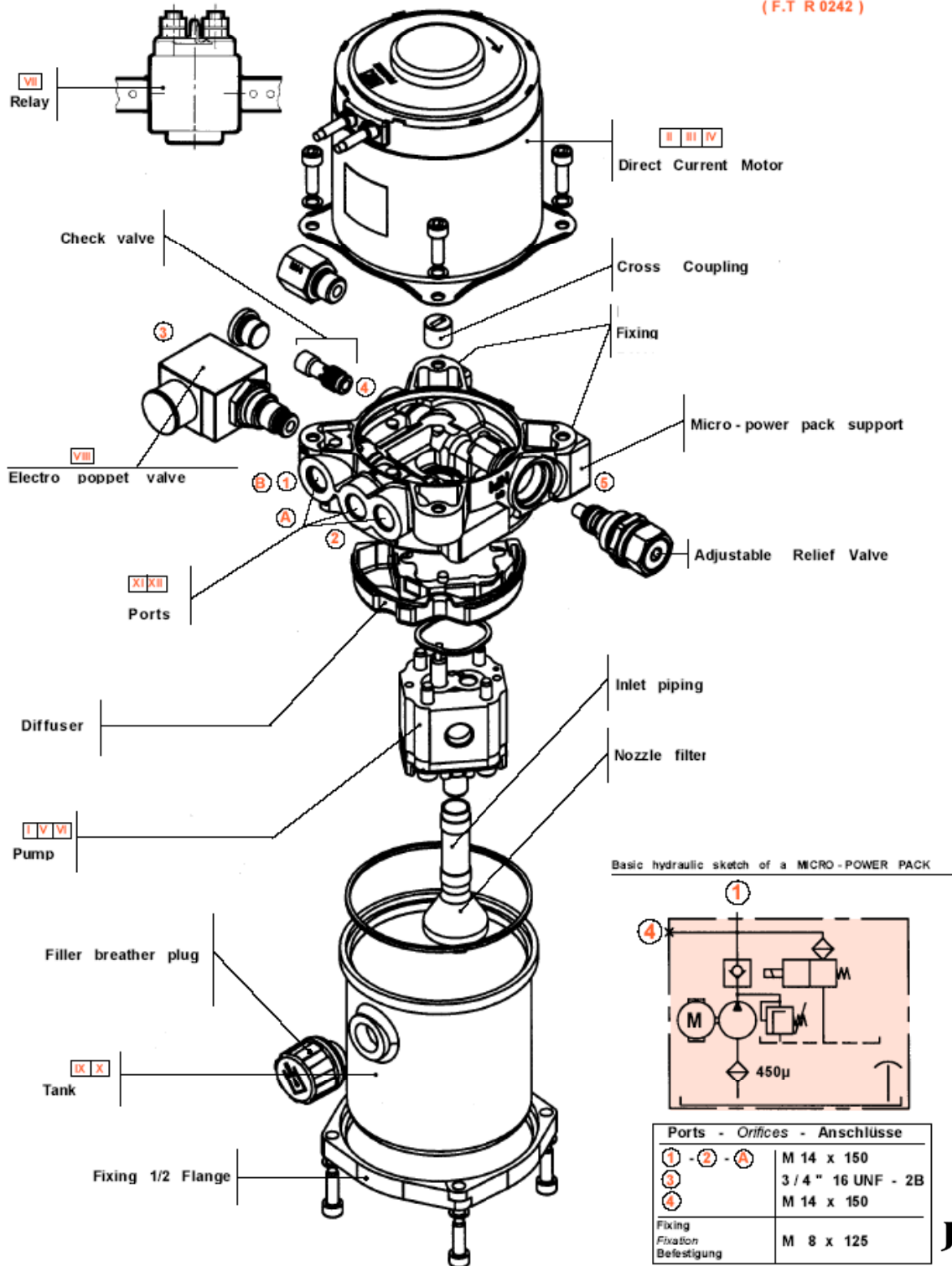
Extract from Standard **NF C 51 - 115** see data sheet **F.T R 0164**



MICRO POWER PACKS.

| | | | | | | | | | | | | | | |
|----------------------|-----------------------|------------------------|-----------------------|----------------------|-----------------------|------------------------|-------------------------|-----------------------|----------------------|-----------------------|------------------------|-------------------------|------------------------|-----------------------|
| 03 | MF | 2 | C | 100 | T | R | 14 | H | 1 | 2 | X | C | X | N |
| I Sign Zeichen | II Sign Zeichen | III Sign Zeichen | IV Sign Zeichen | V Sign Zeichen | VI Sign Zeichen | VII Sign Zeichen | VIII Sign Zeichen | IX Sign Zeichen | X Sign Zeichen | XI Sign Zeichen | XII Sign Zeichen | XIII Sign Zeichen | XIV Sign Zeichen | XV Sign Zeichen |

CODIFICATION
(F.T R 0242)



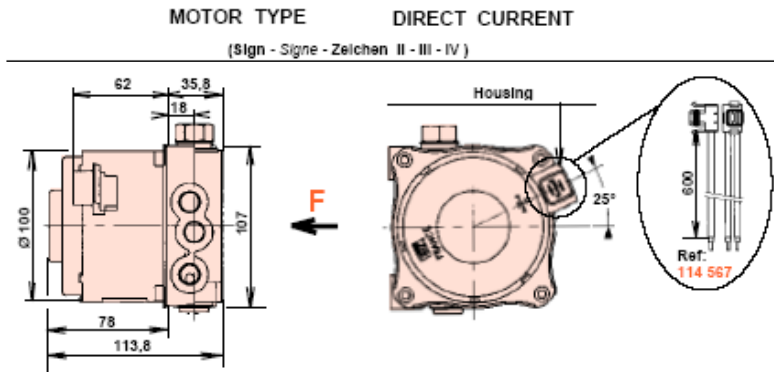
TECHNOLOGICAL COMPOSITION of the MICRO - POWER PACK

MICRO POWER PACKS.

CODIFICATION

| | | | | | | | | | | | | | | |
|---|----|--------------------------|----|--------------------------|----------|-----|------|----|---|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | | Sign Signe Zeichen | | Sign Signe Zeichen | T | | | | | | | | | |

(F.T R 0242)

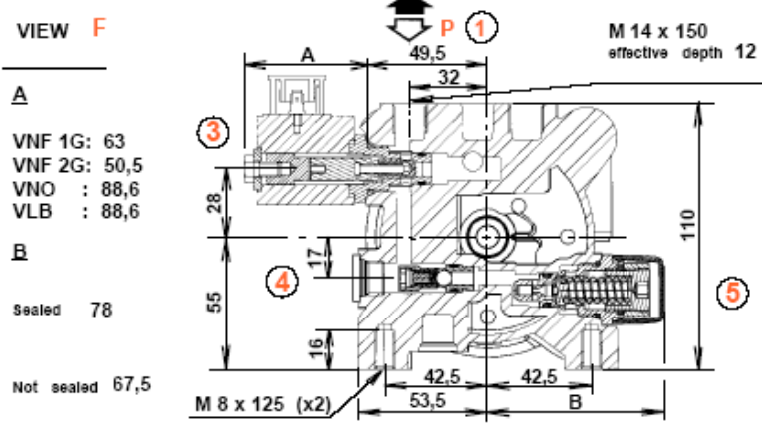


PUMP TYPE
(Sign - Signe - Zeichen V - VI)

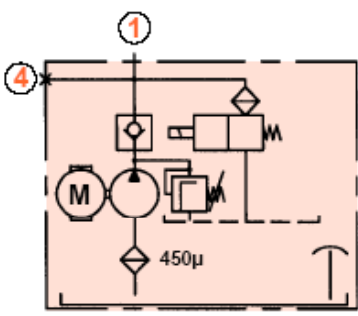
| CODE | VOLTAGE | MOTOR REFERENCE | NOMINAL POWER S3 10 % | HOUSING | MOTOR MASS |
|------------|-------------|------------------|------------------------|---------------------------------|-----------------|
| CODE | TENSION | REFERENCE MOTEUR | PUISSANCE NOM. S3 10 % | BOITIER | MASSE du MOTEUR |
| KODE | SPANNUNG | MOTOR REFERENZ | NENNLEISTUNG S3 10 % | GEHAUSSE | MASSE von MOTOR |
| MF1 | 12 V | 114 223 | 0,4 kW | Ref: 0-1544474-1 " TYCO " | 1,8 Kg |
| MF2 | 24 V | 114 224 | | | |

| MODEL | Capacity (cc / rev) |
|-------------|---------------------------|
| MODELE | Capacité (cm3 / t) |
| TYP | Fördervolumen (cm3 / U) |
| 0025 | 0,25 |
| 0050 | 0,50 |
| 0075 | 0,75 |
| 0100 | 1 |
| 0125 | 1,25 |
| 0150 | 1,50 |

PROTECTION (excepted linking) : IP44



Basic hydraulic sketch of a MICRO POWER PACK



ACCESSORIES

- ELECTRIC CONNECTION :
- Relay - Collars
- HYDRAULIC CONNECTION :
- Adaptors - Pressure Port Adaptors
- DISTRIBUTION and REGULATION :
- Electro Poppet Valves (V.N.F) -
 - Flow limiter -

MICRO POWER - PACKS 3G

DIRECT CURRENT TYPE **MF 12 V-24 V:**
0,4 kW



MICRO POWER PACKS.

CODIFICATION

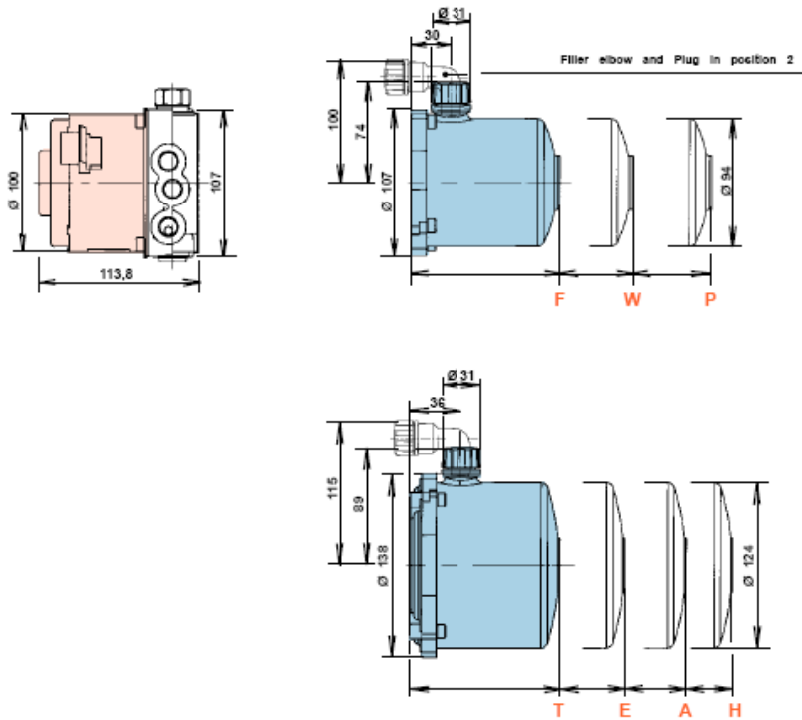
| | | | | | | | | | | | | | | |
|---|----|-----|--------------------------|---|--------------------------|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | 03 | MF | Sign Signe Zeichen | C | Sign Signe Zeichen | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

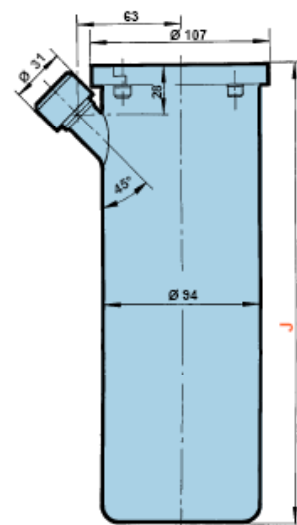
TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RÉSERVOIRS BEHÄLTER | | POSITIONS POSITIONS LAGEN | | POSITION POSITION LAGE | | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|---------------------|---|--------|------------------------------|--|-----------------------------------|
| CODE CODE KODE | TYPE TYPE TYP | USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT | | | | |
| F | 0,5 L | 0,36 L | 0,28 L | | | 110 |
| W | 0,75 L | 0,53 L | 0,46 L | | | 150 |
| P | 1 L | 0,7 L | 0,66 L | | | 190 |
| T | 1,1 L | 0,76 L | 0,38 L | | | 112 |
| E | 1,5 L | 1 L | 0,7 L | | | 148 |
| J | 1,7 L | | 1,10 L | | | 280 |
| A | 2 L | 1,34 L | 1,15 L | | | 194 |
| H | 2,5 L | 1,7 L | 1,7 L | | | 244 |



MICRO POWER - PACKS DIRECT CURRENT

TYPE

MF

12 V - 24V
0,4 kW



MICRO POWER PACKS.

CODIFICATION

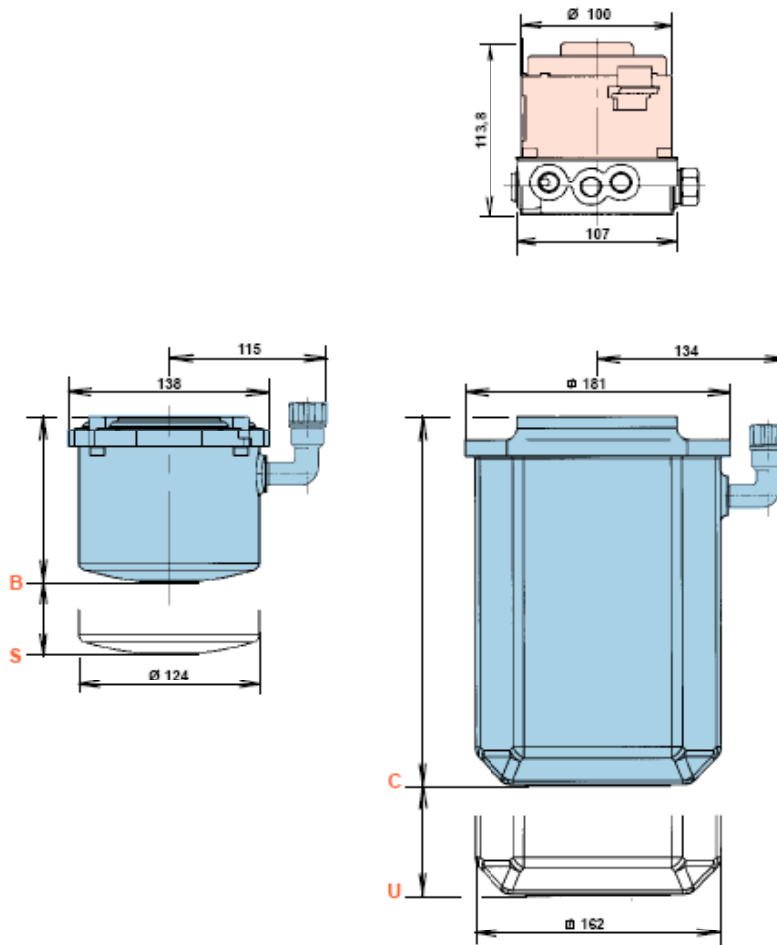
| | | | | | | | | | | | | | | |
|---|--------------|------------------------|----------|----------------------|----------------|-----|------|-----------------------|----------------------|----|-----|------|-----|----|
| I | II | III Sign Zeichen | IV | V Sign Zeichen | VI T | VII | VIII | IX Sign Zeichen | X Sign Zeichen | XI | XII | XIII | XIV | XV |
| | 03 MF | | C | | | | | | | | | | | |

(F.T R 0242)

TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RÉSERVOIRS BEHÄLTER | | POSITIONS POSITIONS LAGEN 1 - 3 - 4 - 5 | POSITION POSITION LAGE 2 | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|---------------------|---|-----------------------------------|-----------------------------------|
| CODE CODE KODE | TYPE TYPE TYP | USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT | | |
| B | 3 L | X | 2 L | 285 |
| S | 4 L | | 3 L | 390 |
| C | 5 L | | 3 L | 242 |
| U | 6 L | | 4,2 L | 297 |

MICRO POWER - PACKS

DIRECT CURRENT

TYPE **MF**

12 V - 24V
0,4 kW



MICRO POWER PACKS.

| | | | | | | | | | | | | | | |
|--------------|----|--------------------------|----|--------------------------|----|-----|------|----|---|----|-----|------|-----|----|
| CODIFICATION | | | | | | | | | | | | | | |
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | MF | Sign Signe Zeichen | C | Sign Signe Zeichen | T | | | | | | | | | |

(F.T R 0242)

DIRECT CURRENT MOTOR
NOMINAL POWER
 S3 (10 % of 10 min) **0,4 kW**

References
114 223

Code **MF** | **1**

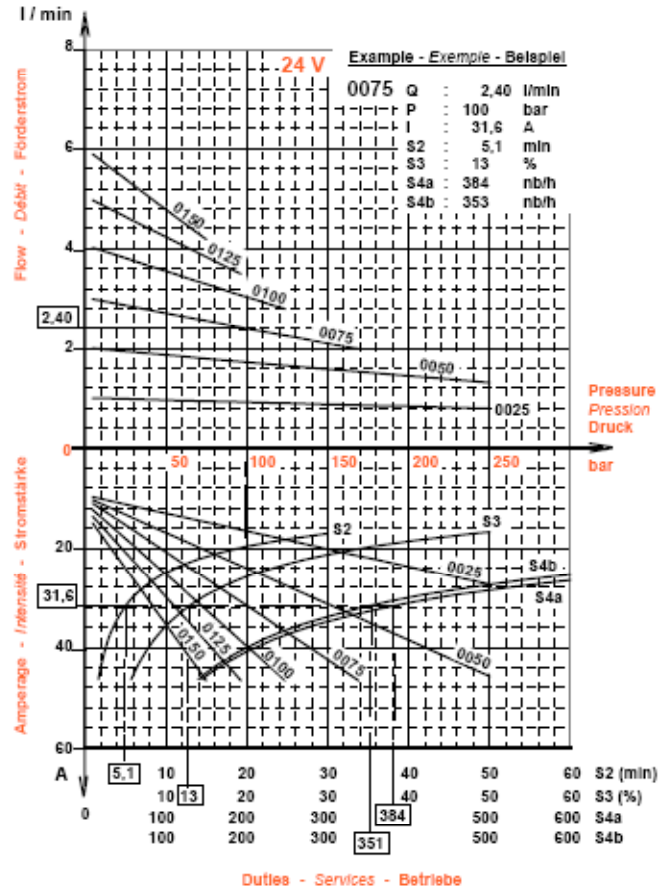
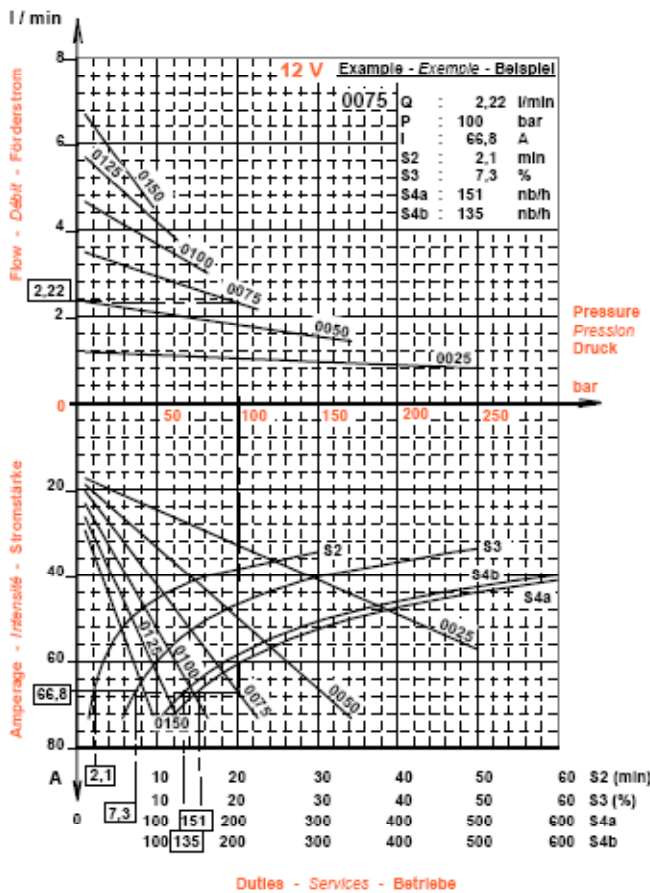
| | |
|---------|---------|
| II | III |
| Sign | Sign |
| Signe | Signe |
| Zeichen | Zeichen |

DIRECT CURRENT MOTOR
NOMINAL POWER
 S3 (10 % of 10 min) **0,4 kW**

References
114 224

Code **MF** | **2**

| | |
|---------|---------|
| II | III |
| Sign | Sign |
| Signe | Signe |
| Zeichen | Zeichen |



- S1 : Continuous Duty
- S2 : Temporary Duty (min)
- S3 : Periodical Intermittent Duty (10% of 10 min)
- S4a - S4b : Intermittent Starting Duty

P C : Critical Moment (min)

Curves drawn with
 a constant tension : Oil SHELL Tellus T46
 Viscosity 46 cst (± 10%) at 40 °C

Test temperature : Oil 40 °C
 Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE **MF** **12 V - 24 V**
0,4 kW



MICRO POWER PACKS.

CODIFICATION

| | | | | | | | | | | | | | | |
|----|----|------------------|----|------------------|----|-----|------|------------------|------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | MF | Signe Zeichen | C | Signe Zeichen | T | | | Signe Zeichen | Signe Zeichen | | | | | |

(F.T R 0242)

DIRECT CURRENT ELECTRIC MOTOR
with permanents magnets

References :

| | | |
|---------------|----------|-----------|
| | II Signe | III Signe |
| 12 V: 114 223 | MF | 1 |
| 24 V: 114 224 | MF | 2 |

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS
OF MICRO POWER PACKS

MOTOR MF 12 V : 0,4 kW
24 V : 0,4 kW

| | PUMPS POMPES PUMPEN | 12 V PRESSURE - PRESSION - DRUCK | | | | | | | | 24 V PRESSURE - PRESSION - DRUCK | | | | | | | |
|--|---------------------------|-------------------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | 5 bar | 50 bar | 100 bar | 150 bar | 175 bar | 200 bar | 225 bar | 250 bar | 5 bar | 50 bar | 100 bar | 150 bar | 175 bar | 200 bar | 225 bar | 250 bar |
| | | 72 PSI | 725 PSI | 1450 PSI | 2175 PSI | 2540 PSI | 2900 PSI | 3260 PSI | 3630 PSI | 72 PSI | 725 PSI | 1450 PSI | 2175 PSI | 2540 PSI | 2900 PSI | 3260 PSI | 3630 PSI |
| Q Flow in l / min Débit en l / min Fördermenge in l / min | Q | 1,15 | 1,08 | 1 | 0,93 | 0,89 | 0,85 | 0,81 | 0,78 | 1,01 | 0,97 | 0,92 | 0,88 | 0,86 | 0,84 | 0,82 | 0,8 |
| | I | 17,4 | 24,7 | 32,8 | 40,9 | 45 | 49,1 | 53,1 | 57,2 | 9,7 | 13 | 16,6 | 20,2 | 22 | 23,8 | 25,5 | 27,3 |
| | S2 | 30 | 30 | 30 | 15 | 10,3 | 7,3 | 5,3 | 3,9 | 30 | 30 | 30 | 18,5 | 14,5 | 11,6 | 9,4 | 7,7 |
| | S3 | 50 | 50 | 50 | 28,9 | 22,2 | 17,4 | 13,9 | 11,3 | 50 | 50 | 50 | 33,7 | 28,1 | 23,8 | 20,4 | 17,6 |
| | S4a | 600 | 600 | 600 | 600 | 467 | 365 | 291 | 236 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 555 |
| I Amperage Intensité en Ampères Stromstärke in Ampere | Q | 2,28 | 2,03 | 1,75 | 1,47 | | | | | 2 | 1,87 | 1,73 | 1,59 | 1,52 | 1,45 | 1,38 | 1,31 |
| | I | 18,8 | 33,5 | 49,8 | 66,1 | | | | | 10,4 | 16,9 | 24,1 | 31,3 | 34,9 | 38,5 | 42,1 | 45,7 |
| | S2 | 30 | 30 | 6,8 | 2,2 | | | | | 30 | 30 | 11,1 | 5,2 | 3,8 | 2,9 | 2,2 | 1,8 |
| | S3 | 50 | 50 | 16,7 | 7,5 | | | | | 50 | 49,2 | 23,1 | 13,2 | 10,5 | 8,5 | 7,1 | 5,9 |
| | S4a | 600 | 600 | 349 | 156 | | | | | 600 | 600 | 600 | 393 | 298 | 232 | 185 | 150 |
| S1 Permanent Permanent Dauerbetrieb | S4b | 600 | 600 | 317 | 139 | | | | | 600 | 600 | 600 | 362 | 278 | 219 | 177 | 145 |
| | 170 bar Maxi | | | | | | | | | | | | | | | | |
| | 170 bar Maxi | | | | | | | | | | | | | | | | |
| | 170 bar Maxi | | | | | | | | | | | | | | | | |
| | 170 bar Maxi | | | | | | | | | | | | | | | | |
| S2 min | Q | 3,39 | 2,83 | 2,22 | | | | | | 2,99 | 2,7 | 2,40 | 2,1 | | | | |
| | I | 20,3 | 42,3 | 66,8 | | | | | | 11 | 20,8 | 31,6 | 42,4 | | | | |
| | S2 | 30 | 13,1 | 2,1 | | | | | | 30 | 17 | 5,1 | 2,2 | | | | |
| | S3 | 50 | 26,4 | 7,3 | | | | | | 50 | 31,6 | 13 | 6,9 | | | | |
| | S4a | 600 | 556 | 151 | | | | | | 600 | 600 | 384 | 181 | | | | |
| S3 % (10 min) S4a | S4b | 600 | 510 | 135 | | | | | | 600 | 600 | 353 | 173 | | | | |
| | 115 bar Maxi | | | | | | | | | | | | | | | | |
| | 115 bar Maxi | | | | | | | | | | | | | | | | |
| | 115 bar Maxi | | | | | | | | | | | | | | | | |
| | 115 bar Maxi | | | | | | | | | | | | | | | | |
| Number of start / hour 1 sec. work 1 sec. stop during 20 sec. Rest 40 sec. Nb de démarrage / h 1 sec. travail 1 sec. arrêt Anzahl der Anläufe / h 1 Sek. Arbeit 5 Sek. Stillstand S4b | Q | 4,52 | 3,54 | | | | | | | 4,02 | 3,55 | 3,03 | | | | | |
| | I | 23,2 | 52,5 | | | | | | | 12,3 | 25,3 | 39,7 | | | | | |
| | S2 | 30 | 5,5 | | | | | | | 30 | 9,7 | 2,6 | | | | | |
| | S3 | 50 | 14,4 | | | | | | | 50 | 20,9 | 8 | | | | | |
| | S4a | 600 | 301 | | | | | | | 600 | 600 | 214 | | | | | |
| S4b | S4b | 600 | 272 | | | | | | | 600 | 600 | 203 | | | | | |
| | 80 bar Maxi | | | | | | | | | | | | | | | | |
| | 80 bar Maxi | | | | | | | | | | | | | | | | |
| | 80 bar Maxi | | | | | | | | | | | | | | | | |
| | 80 bar Maxi | | | | | | | | | | | | | | | | |
| Number of start / hour 1 sec. work 1 sec. stop during 20 sec. Rest 40 sec. Nb de démarrage / h 1 sec. travail 1 sec. arrêt pendant 20 sec. Repos 40 sec. Anzahl der Anläufe / h 1 Sek. Arbeit 1 Sek. Stillstand während 20 Sek. Ruhe 40 Sek. PC | Q | 5,52 | 4,01 | | | | | | | 4,97 | 4,23 | | | | | | |
| | I | 26,3 | 62,7 | | | | | | | 13,6 | 29,8 | | | | | | |
| | S2 | 30 | 2,7 | | | | | | | 30 | 6 | | | | | | |
| | S3 | 50 | 8,7 | | | | | | | 50 | 14,7 | | | | | | |
| | S4a | 600 | 181 | | | | | | | 600 | 445 | | | | | | |
| S4b | S4b | 600 | 162 | | | | | | | 600 | 406 | | | | | | |
| | 60 bar Maxi | | | | | | | | | | | | | | | | |
| | 60 bar Maxi | | | | | | | | | | | | | | | | |
| | 60 bar Maxi | | | | | | | | | | | | | | | | |
| | 60 bar Maxi | | | | | | | | | | | | | | | | |
| (min) Continuous working breaking point (min) Point critique en fonctionnement (Interrompu (min) Kritischer Punkt bei durchgehendem Betrieb | Q | 6,47 | 4,30 | | | | | | | 5,89 | 4,78 | | | | | | |
| | I | 29,5 | 73 | | | | | | | 15 | 35,3 | | | | | | |
| | S2 | 30 | 1,5 | | | | | | | 30 | 3,7 | | | | | | |
| | S3 | 50 | 5,7 | | | | | | | 50 | 10,3 | | | | | | |
| | S4a | 600 | 117 | | | | | | | 600 | 289 | | | | | | |
| S4b | S4b | 600 | 104 | | | | | | | 600 | 270 | | | | | | |
| | 50 bar Maxi | | | | | | | | | | | | | | | | |
| | 50 bar Maxi | | | | | | | | | | | | | | | | |
| | 50 bar Maxi | | | | | | | | | | | | | | | | |
| | 50 bar Maxi | | | | | | | | | | | | | | | | |
| 0200 | Q | | | | | | | | | | | | | | | | |
| | I | | | | | | | | | | | | | | | | |
| | S2 | | | | | | | | | | | | | | | | |
| | S3 | | | | | | | | | | | | | | | | |
| | S4a | | | | | | | | | | | | | | | | |
| S4b | S4b | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |



MICRO POWER PACKS.

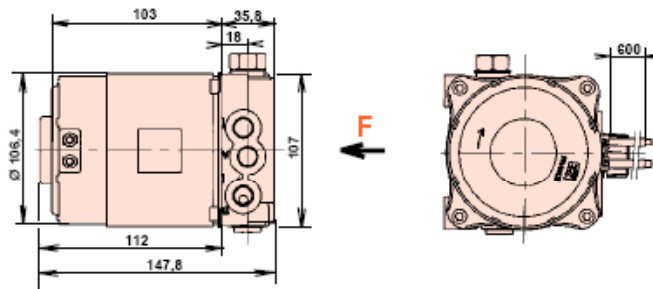
CODIFICATION

| | | | | | | | | | | | | | | |
|----|----|-----|----|---------------------------|----|-----|------|----|---|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | HF | 2 | C | Signe Signe Zeichen | T | | | | | | | | | |

(F.T R 0242)

MOTOR TYPE DIRECT CURRENT

(Sign - Signe - Zeichen II - III - IV)



| | | | | | |
|------------|-------------|------------------|------------------------|--------|-----------------|
| CODE | VOLTAGE | MOTOR REFERENCE | NOMINAL POWER S3 10 % | WIRES | MOTOR MASS |
| CODE | TENSION | REFERENCE MOTEUR | PUISSANCE NOM. S3 10 % | FILS | MASSE du MOTEUR |
| KODE | SPANNUNG | MOTOR REFERENZ | NENNLEISTUNG S3 10 % | DRÄHTE | MASSE von MOTOR |
| HF2 | 24 V | 114 225 | 1 kW | | 3,2 Kg |

PROTECTION (excepted linking) : IP44

PUMP TYPE

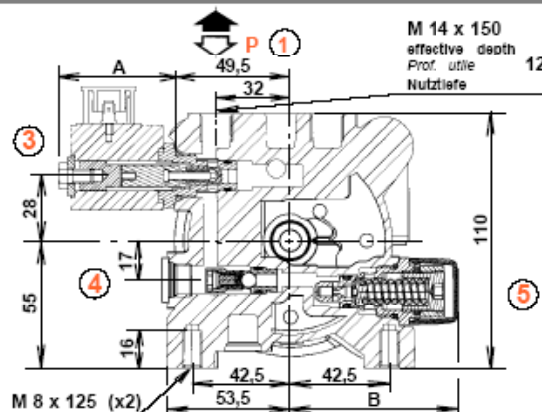
(Sign - Signe - Zeichen V - VI)

| | |
|-------------|---------------------------|
| MODEL | Capacity (cc / rev) |
| MODELE | Capacité (cm3 / t) |
| TYP | Fördervolumen (cm3 / U) |
| 0025 | 0,25 |
| 0050 | 0,50 |
| 0075 | 0,75 |
| 0100 | 1 |
| 0125 | 1,25 |
| 0150 | 1,50 |

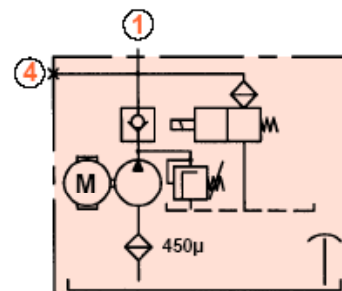
VIEW F

- A**
- VNF 1G: 63
 - VNF 2G: 50,5
 - VNO : 88,6
 - VLB : 88,6

- B**
- Sealed
Plombé 78
Plombiert
 - Not sealed
Non plombé 67,5
Nicht Plombiert



Basic hydraulic sketch of a MICRO POWER PACK



ACCESSORIES

ELECTRIC CONNECTION :

Relay - Collars

HYDRAULIC CONNECTION :

Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :

Electro Poppet Valves (V.N.F) -
Flow limiter -

MICRO POWER - PACKS 3G

DIRECT CURRENT

TYPE **HF 24 V: 1 kW**



MICRO POWER PACKS.

CODIFICATION

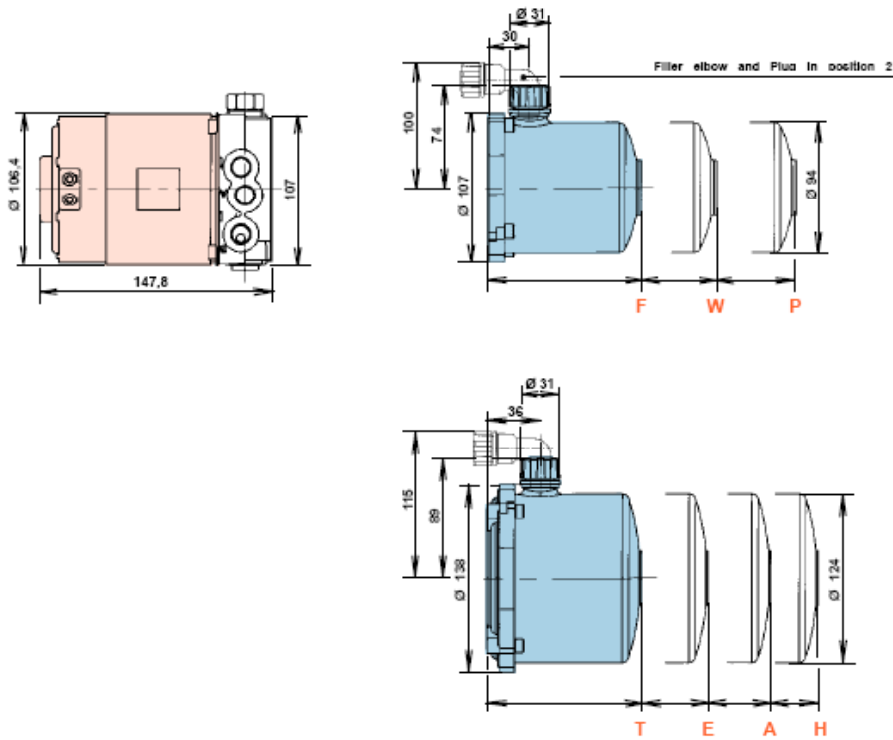
| | | | | | | | | | | | | | | |
|----|----|-----|----|--------------------------|----|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | HF | 2 | C | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

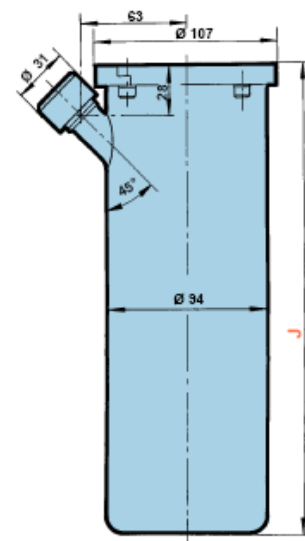
TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RESERVOIRS BEHALTER | | POSITIONS POSITIONS LAGEN | | POSITION POSITION LAGE | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|---------------------|---------------------------------|---|------------------------------|-----------------------------------|
| CODE CODE KODE | TYPE TYPE TYP | 1 - 3 - 4 - 5 | USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT | 2 | |
| F | 0,5 L | 0,36 L | 0,28 L | 110 | |
| W | 0,75 L | 0,53 L | 0,46 L | 150 | |
| P | 1 L | 0,7 L | 0,66 L | 190 | |
| T | 1,1 L | 0,76 L | 0,38 L | 112 | |
| E | 1,5 L | 1 L | 0,7 L | 148 | |
| J | 1,7 L | | 1,10 L | 280 | |
| A | 2 L | 1,34 L | 1,15 L | 194 | |
| H | 2,5 L | 1,7 L | 1,7 L | 244 | |



MICRO POWER - PACKS

DIRECT CURRENT

TYPE **HF** 24 V: 1 kW



MICRO POWER PACKS.

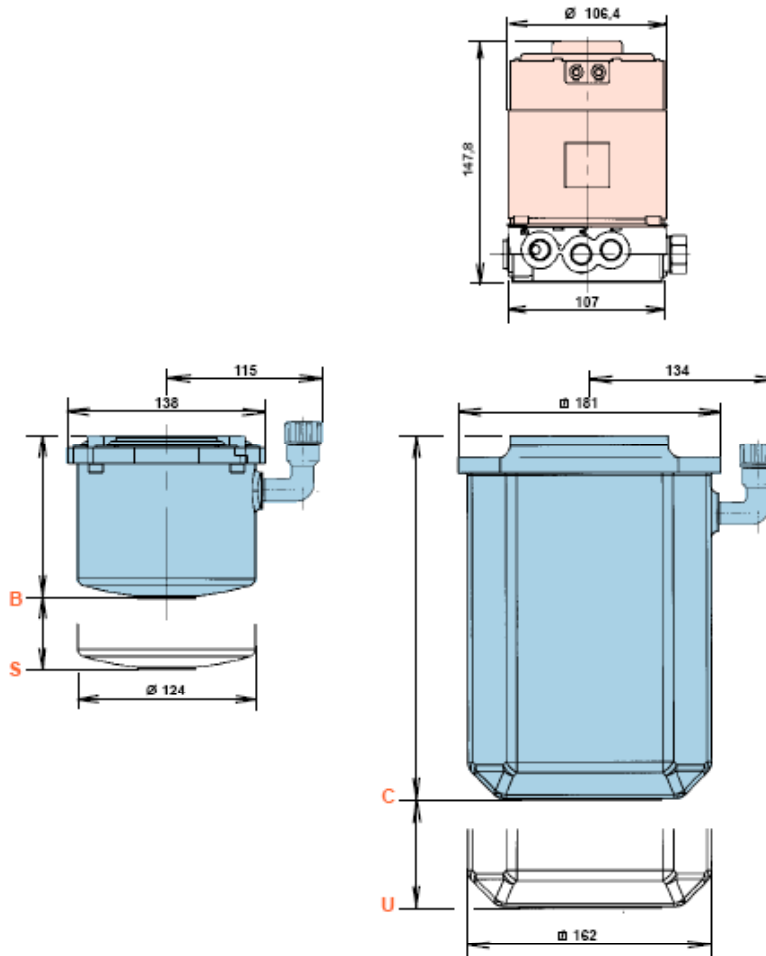
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
|---|----|-----|----|--------------------------|----------|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| | | | | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RÉSERVOIRS BEHÄLTER | | POSITIONS POSITIONS LAGEN | POSITION POSITION LAGE | USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|---------------------|---------------------------------|------------------------------|---|-----------------------------------|
| CODE CODE KODE | TYPE TYPE TYP | 1 - 3 - 4 - 5 | 2 | | |
| B | 3 L | X | 2 L | 285 | |
| S | 4 L | | 3 L | 390 | |
| C | 5 L | | 3 L | 242 | |
| U | 6 L | | 4,2 L | 297 | |

MICRO POWER - PACKS

DIRECT CURRENT

TYPE **HF** 24V: 1 kW

MICRO POWER PACKS.

| | | | | | | | | | | | | | | | | |
|--------------|--|----|----|-----|----|--------------------------|----|-----|------|----|--------------------------|--------------------------|-----|------|-----|----|
| CODIFICATION | | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | | 03 | HF | 2 | C | Sign Signe Zeichen | T | | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | |

(F.T R 0242)

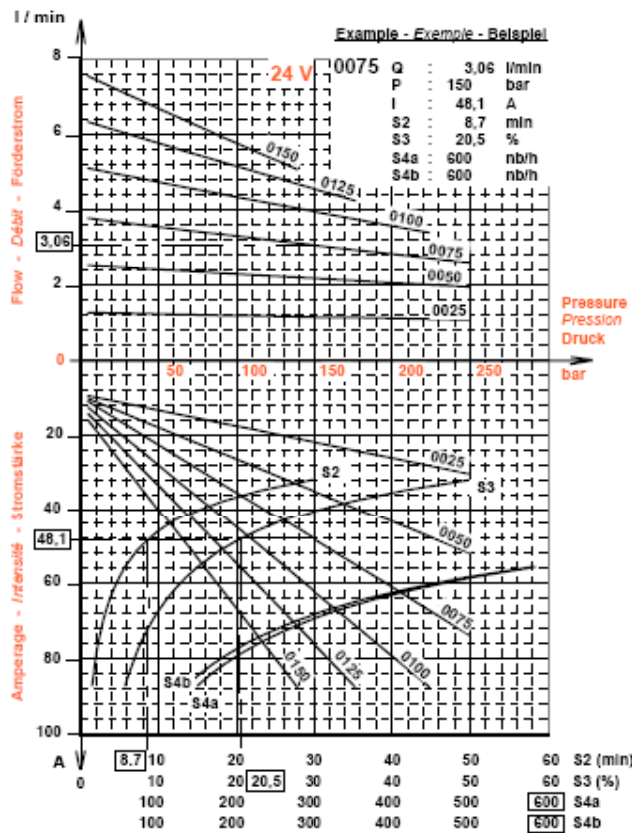
DIRECT CURRENT MOTOR
NOMINAL POWER
S3 (10 % of 10 min)

1 kW

References
114 225

Code **HF | 2**

| | |
|--------------------------|--------------------------|
| II | III |
| Sign Signe Zeichen | Sign Signe Zeichen |



- S1 : Continuous Duty
- S2 : Temporary Duty (min)
- S3 : Periodical Intermittent Duty (10% of 10 min)
- S4a - S4b : Intermittent Starting Duty

PC : Critical Moment (min)

Curves drawn with
a constant tension : OIL SHELL Tellus T46
Viscosity 46 cst (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE **HF 24 V: 1 kW**



MICRO POWER PACKS.

CODIFICATION

| | | | | | | | | | | | | | | |
|----|----|-----|----|--------------------------|----|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | HF | 2 | C | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

DIRECT CURRENT ELECTRIC MOTOR
with permanents magnets

References : II signe III signe

24 V: 114 225 **HF** **2**

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS
OF MICRO POWER PACKS

MOTOR **HF** 24 V : 1 kW

| PUMPS POMPES PUMPEN | VOLTAGE - TENSION - SPANNUNG 24 V | | | | | | | | | | | |
|---|--------------------------------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|------|--|
| | PRESSURE - PRESSION - DRUCK | | | | | | | | | | | |
| | 5 bar 72 PSI | 50 bar 725 PSI | 100 bar 1450 PSI | 125 bar 2175 PSI | 150 bar 2540 PSI | 175 bar 2900 PSI | 200 bar 3260 PSI | 225 bar 3630 PSI | 250 bar 3630 PSI | | | |
| Q Flow in l / min Débit en l / min Fördermenge in l / min I Intensity in Amperes Intensité en Ampères Stromstärke in Ampere S1 Permanent Permanent Dauerbetrieb S2 min S3 % (10 min) S4a Number of start / hour 1 sec. work 5 sec. stop Nb de démarrage / h 1 sec. travail 5 sec. arrêt Anzahl der Anläufe / h 1 Sek. Arbeit 5 Sek. Stillstand S4b Number of start / hour 1 sec. work 1 sec. stop during 20 sec. Rest 40 sec. Nb de démarrage / h 1 sec. travail 1 sec. arrêt pendant 20 sec. Repos 40 sec. Anzahl der Anläufe / h 1 Sek. Arbeit 1 Sek. Stillstand während 20 Sek. Ruhe 40 Sek. PC (min) Continuous working breaking point (min) Point critique en fonctionnement inInterrompu (min) Kritischer Punkt bei durchgehendem Betrieb | 0025 | Q | 1,27 | 1,23 | 1,19 | 1,17 | 1,15 | 1,13 | 1,12 | 1,10 | 1,08 | |
| | I | 9,4 | 13,2 | 17,4 | 19,6 | 21,7 | 23,8 | 25,9 | 28,1 | 30,2 | | |
| | S2 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | | |
| | S3 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | |
| | S4a | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | |
| | S4b | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | |
| | 0050 | Q | 2,53 | 2,42 | 2,30 | 2,24 | 2,18 | 2,12 | 2,07 | 2,01 | 1,95 | |
| | I | 10,1 | 17,8 | 26,3 | 30,6 | 34,9 | 39,2 | 43,4 | 47,7 | 52 | | |
| | S2 | 30 | 30 | 30 | 30 | 22,5 | 16 | 11,8 | 9 | 7 | | |
| | S3 | 50 | 50 | 50 | 50 | 40,8 | 31,9 | 25,5 | 20,9 | 17,4 | | |
| S4a | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | | |
| S4b | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | | | |
| 0075 | Q | 3,78 | 3,55 | 3,31 | 3,18 | 3,06 | 2,95 | 2,83 | 2,71 | 2,60 | | |
| I | 10,9 | 22,5 | 35,3 | 41,7 | 48,1 | 54,5 | 61 | 67,4 | 73,8 | | | |
| S2 | 30 | 30 | 21,8 | 13,3 | 8,7 | 6,1 | 4,4 | 3,3 | 2,5 | | | |
| S3 | 50 | 50 | 39,8 | 27,8 | 20,5 | 15,7 | 12,3 | 9,9 | 8,2 | | | |
| S4a | 600 | 600 | 600 | 600 | 600 | 600 | 442 | 326 | 247 | | | |
| S4b | 600 | 600 | 600 | 600 | 600 | 600 | 431 | 311 | 232 | | | |
| 0100 | Q | 5,11 | 4,75 | 4,35 | 4,15 | 3,96 | 3,77 | 3,58 | 3,40 | 225 bar maxl. | | |
| I | 12,5 | 27,9 | 45 | 53,5 | 62,1 | 70,6 | 79,2 | 87,4 | | | | |
| S2 | 30 | 30 | 10,7 | 6,4 | 4,1 | 2,8 | 2 | 1,5 | | | | |
| S3 | 50 | 50 | 23,7 | 16,3 | 11,9 | 9 | 7 | 5,7 | | | | |
| S4a | 600 | 600 | 600 | 600 | 418 | 283 | 200 | 148 | | | | |
| S4b | 600 | 600 | 600 | 600 | 406 | 267 | 185 | 134 | | | | |
| 0125 | Q | 6,35 | 5,78 | 5,16 | 4,86 | 4,56 | 4,27 | 175 bar maxl. | | | | |
| I | 14,1 | 35,3 | 54,7 | 65,3 | 76 | 86,7 | | | | | | |
| S2 | 30 | 25,8 | 6 | 3,6 | 2,3 | 1,6 | | | | | | |
| S3 | 50 | 45 | 15,6 | 10,6 | 7,7 | 5,8 | | | | | | |
| S4a | 600 | 600 | 600 | 358 | 226 | 152 | | | | | | |
| S4b | 600 | 600 | 600 | 344 | 211 | 138 | | | | | | |
| 0150 | Q | 7,56 | 6,7 | 5,78 | 5,33 | 140 bar maxl. | | | | | | |
| I | 15,8 | 39,9 | 66,7 | 80,1 | | | | | | | | |
| S2 | 30 | 15,2 | 3,4 | 2 | | | | | | | | |
| S3 | 50 | 30,6 | 10,2 | 6,9 | | | | | | | | |
| S4a | 600 | 600 | 336 | 193 | | | | | | | | |
| S4b | 600 | 600 | 322 | 178 | | | | | | | | |
| 0200 | Q | | | | | | | | | | | |
| I | | | | | | | | | | | | |
| S2 | | | | | | | | | | | | |
| S3 | | | | | | | | | | | | |
| S4a | | | | | | | | | | | | |



MICRO POWER PACKS.

CODIFICATION

| | | | | | | | | | | | | | | |
|---|-----------|-----------|--------------------------|----------|--------------------------|----------|------|----|---|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | 03 | AF | Sign Signe Zeichen | C | Sign Signe Zeichen | T | | | | | | | | |

(F.T R 0242)

MOTOR TYPE DIRECT CURRENT
(Sign - Signe - Zeichen II - III - IV)

| | | | | | |
|------------|-------------|------------------|------------------------|-----------------------------|-----------------|
| CODE | VOLTAGE | MOTOR REFERENCE | NOMINAL POWER S3 10 % | WIRES | MOTOR MASS |
| CODE | TENSION | REFERENCE MOTEUR | PUISSANCE NOM. S3 10 % | FILS | MASSE du MOTEUR |
| KODE | SPANNUNG | MOTOR REFERENZ | NENNLEISTUNG S3 10 % | DRÄHTE | MASSE von MOTOR |
| AF1 | 12 V | 114 226 | 0,9 kW | ⊕ Red - Rouge - Rot | 3,4 Kg |
| AF2 | 24 V | 114 227 | 1,2 kW | ⊖ Black - Noir - Schwarz | |

PROTECTION (excepted linking) :
PROTECTION (sauf raccordements) : **IP44**
SCHUTZART (ausser Anschlussklemmen) :

PUMP TYPE
(Sign - Signe - Zeichen V - VI)

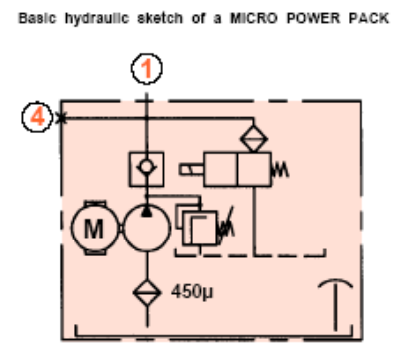
| | |
|-------------|---------------------------|
| MODEL | Capacity (cc / rev) |
| MODELE | Capacité (cm3 / t) |
| TYP | Fördervolumen (cm3 / U) |
| 0025 | 0,25 |
| 0050 | 0,50 |
| 0075 | 0,75 |
| 0100 | 1 |
| 0125 | 1,25 |
| 0150 | 1,50 |

VIEW F

M 14 x 150
effective depth
Prof. utile
Nutztiefe 12

A
VNF 1G: 63
VNF 2G: 50,5
VNO : 88,6
VLB : 88,6

B
Sealed
Plombe 78
Plombiert
Not sealed
Non plombe 67,5
Nicht Plombiert



- ACCESSORIES**
- ELECTRIC CONNECTION :**
Relay - Collars
- HYDRAULIC CONNECTION :**
Adaptors - Pressure Port Adaptors
- DISTRIBUTION and REGULATION :**
Electro Poppet Valves (V.N.F.) -
Flow limiter -

MICRO POWER - PACKS 3G

DIRECT CURRENT TYPE **AF** 12 V: 0,9 kW
24 V: 1,2 kW



MICRO POWER PACKS.

CODIFICATION

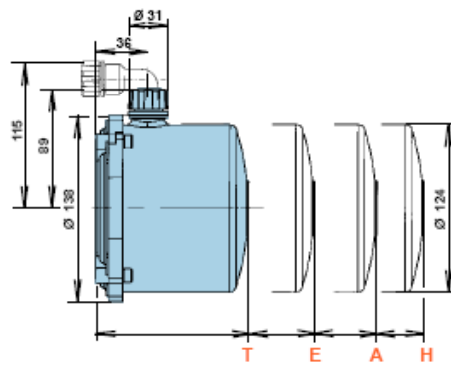
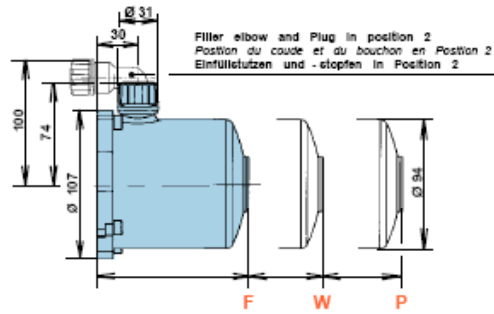
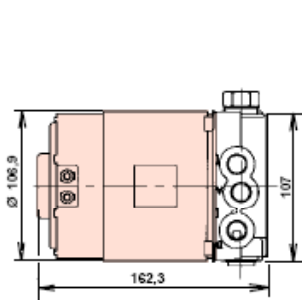
| | | | | | | | | | | | | | | |
|---|----|-----|---------------------------|---|---------------------------|-----|------|----|---------------------------|---------------------------|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | 03 | AF | Signe Signe Zeichen | C | Signe Signe Zeichen | T | | | Signe Signe Zeichen | Signe Signe Zeichen | | | | |

(F.T R 0242)

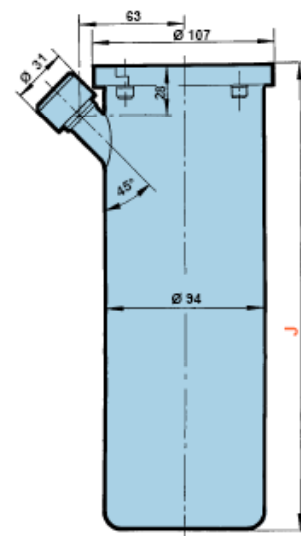
TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RÉSERVOIRS BEHÄLTER | | POSITIONS POSITIONS LAGEN | | POSITION POSITION LAGE | | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|---------------------|------------------------------------|----------------------|------------------------------|---|-----------------------------------|
| CODE CODE KODE | TYPE TYPE TYP | 1 - 3 - 4 - 5 | 2 | 1 - 3 - 4 - 5 | 2 | |
| | | USEFUL CAPACITIES NUTZINHALT | CAPACITY UTILITES | | | |
| F | 0,5 L | 0,36 L | 0,28 L | | | 110 |
| W | 0,75 L | 0,53 L | 0,46 L | | | 150 |
| P | 1 L | 0,7 L | 0,66 L | | | 190 |
| T | 1,1 L | 0,76 L | 0,38 L | | | 112 |
| E | 1,5 L | 1 L | 0,7 L | | | 148 |
| J | 1,7 L | | 1,10 L | | | 280 |
| A | 2 L | 1,34 L | 1,15 L | | | 194 |
| H | 2,5 L | 1,7 L | 1,7 L | | | 244 |



MICRO POWER - PACKS DIRECT CURRENT

TYPE

AF

12 V: 0,9 kW
24 V: 1,2 kW



MICRO POWER PACKS.

CODIFICATION

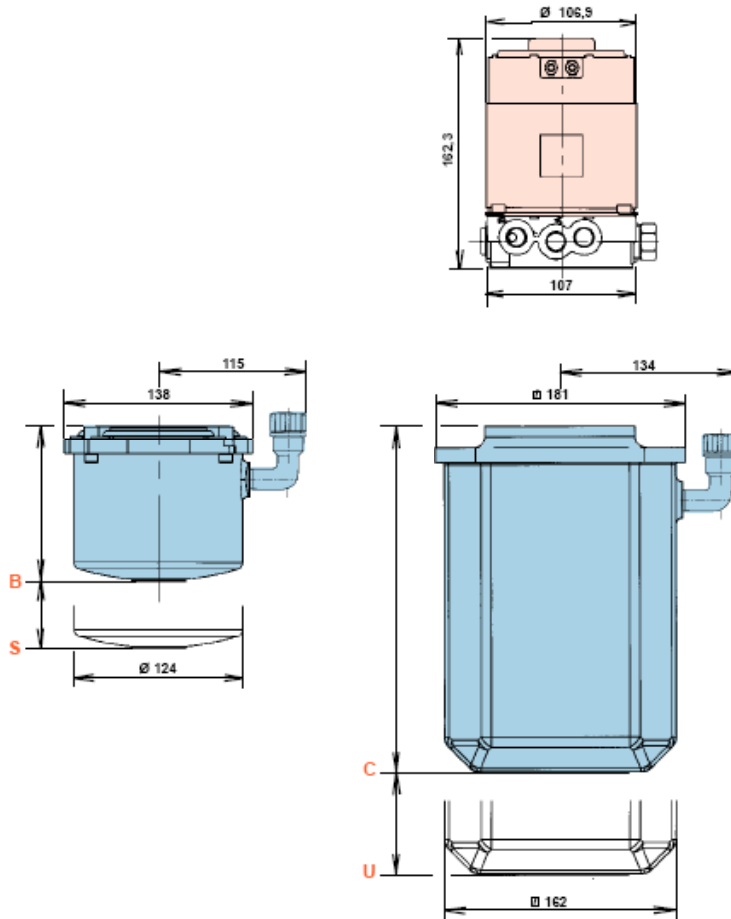
| | | | | | | | | | | | | | | |
|---|-----------|--------------------------|----------|--------------------------|----------|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | AF | Sign Signe Zeichen | C | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

TYPE OF TANKS

(Full capacity)

(Sign - Signe - Zeichen VIII)



| TANKS RÉSERVOIRS BEHÄLTER | | POSITIONS POSITIONS LAGEN 1 - 3 - 4 - 5 | POSITION POSITION LAGE 2 | USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT | DIMENSIONS DIMENSIONS MASSE |
|---------------------------------|-----|--|-----------------------------------|---|-----------------------------------|
| B | 3 L | X | 2 L | 285 | |
| S | 4 L | | 3 L | 390 | |
| C | 5 L | | 3 L | 242 | |
| U | 6 L | | 4,2 L | 297 | |

MICRO POWER - PACKS DIRECT CURRENT

TYPE

AF

12 V: 0,9 kW
24V: 1,2 kW



MICRO POWER PACKS.

| | | | | | | | | | | | | | | |
|---|-------|--------------------------|----|--------------------------|----|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| | 03 AF | Sign Signe Zeichen | C | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

DIRECT CURRENT MOTOR
NOMINAL POWER
S3 (10 % of 10 min)

0,9 kW

References
114 226

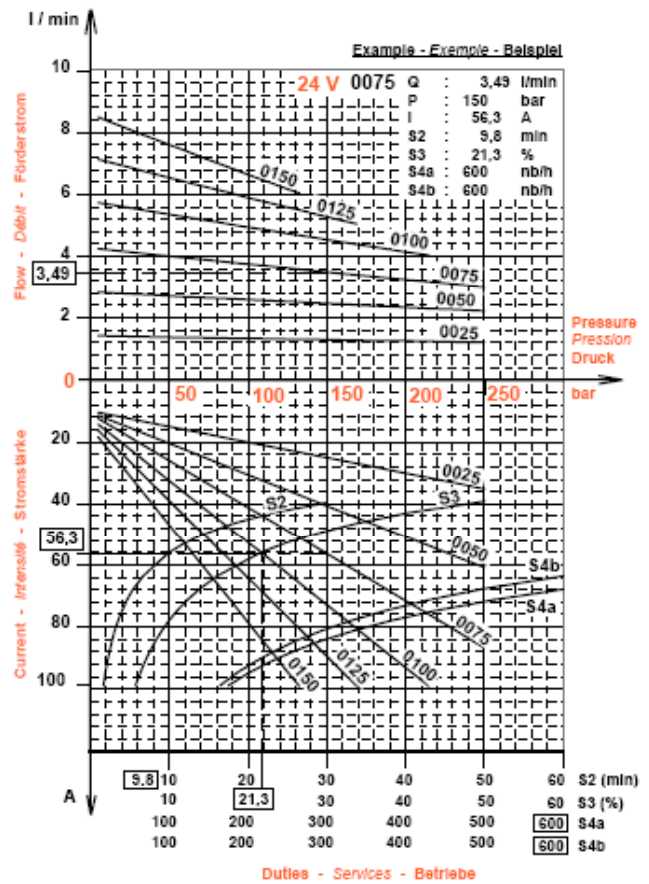
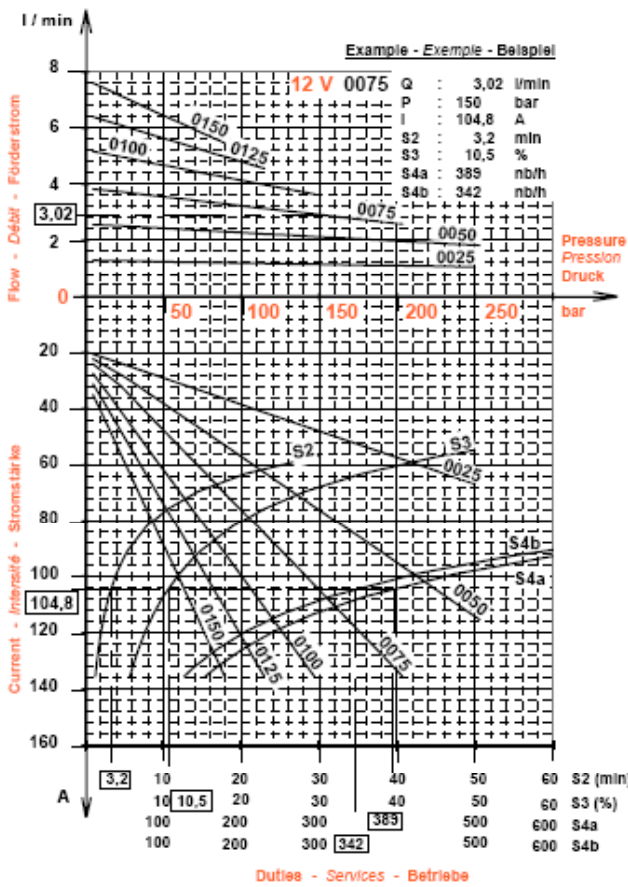
| | | | | |
|------|----|---|--------------------------------|---------------------------------|
| Code | AF | 1 | II Sign Signe Zeichen | III Sign Signe Zeichen |
|------|----|---|--------------------------------|---------------------------------|

DIRECT CURRENT MOTOR
NOMINAL POWER
S3 (10 % of 10 min)

1,2 kW

References
114 227

| | | | | |
|------|----|---|--------------------------------|---------------------------------|
| Code | AF | 2 | II Sign Signe Zeichen | III Sign Signe Zeichen |
|------|----|---|--------------------------------|---------------------------------|



- S1 : Continuous Duty
- S2 : Temporary Duty (min)
- S3 : Periodical Intermittent Duty (10% of 10 min)
- S4a - S4b : Intermittent Starting Duty

P C : Critical Moment (min)

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cst (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example — — — — —

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE AF 12 V: 0,9 kW
24 V: 1,2 kW



MICRO POWER PACKS.

CODIFICATION

| | | | | | | | | | | | | | | |
|----|----|--------------------------|----|--------------------------|----|-----|------|--------------------------|--------------------------|----|-----|------|-----|----|
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII | XIV | XV |
| 03 | AF | Sign Signe Zeichen | C | Sign Signe Zeichen | T | | | Sign Signe Zeichen | Sign Signe Zeichen | | | | | |

(F.T R 0242)

DIRECT CURRENT ELECTRIC MOTOR
with permanents magnets

References :

| | | |
|---------------|----------|-----------|
| | II signe | III Signe |
| 12 V: 114 226 | AF | 1 |
| 24 V: 114 227 | AF | 2 |

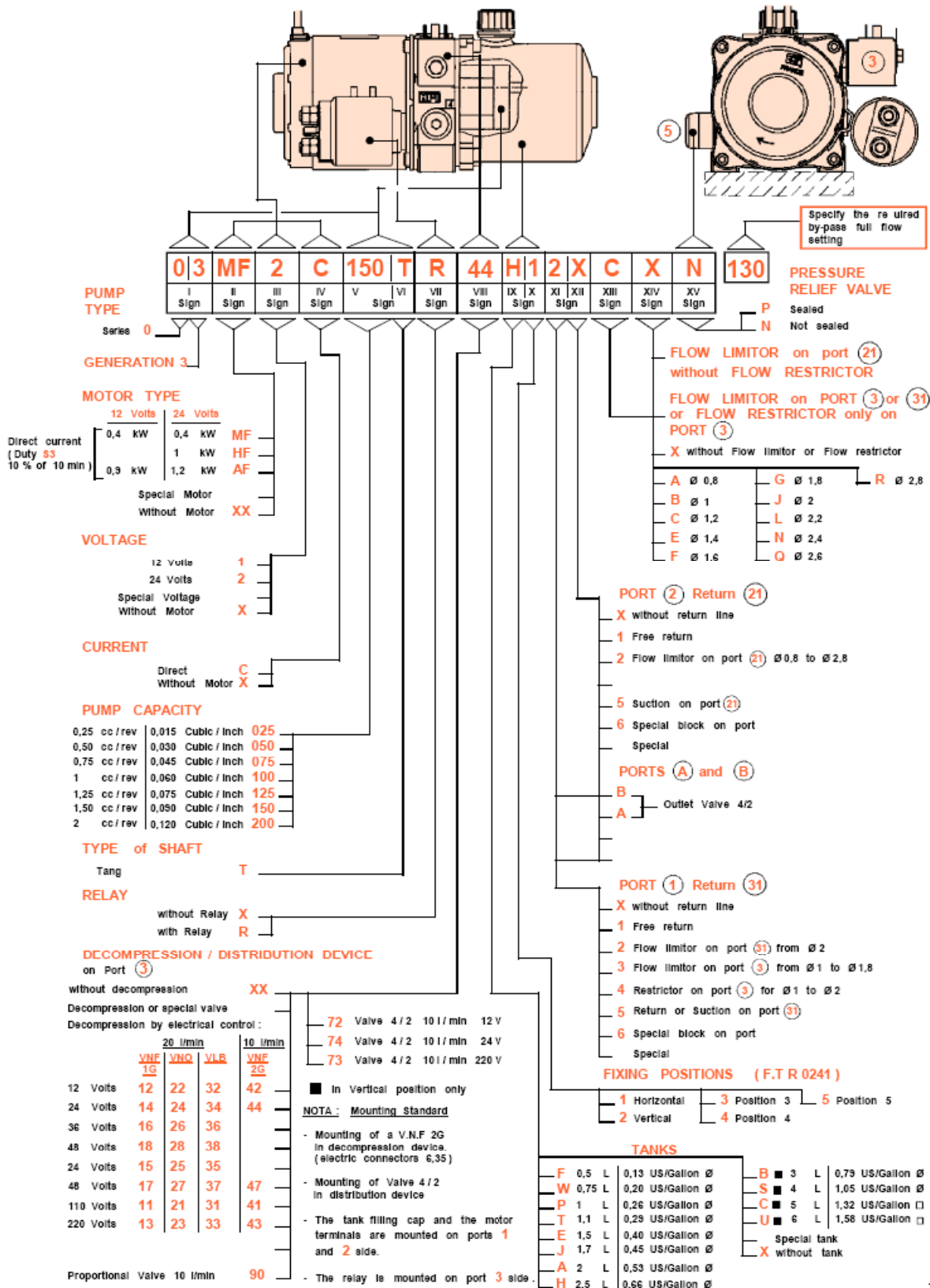
MAIN ELECTRO - HYDRAULIC CHARACTERISTICS
OF MICRO POWER PACKS

MOTOR **AF** 12 V : 0,9 kW
24 V : 1,2 kW

| | PUMPS POMPES PUMPEN | 12 V | | | | | | | | 24 V | | | | | | | |
|---|---------------------------|-----------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | PRESSURE - PRESSION - DRUCK | | | | | | | | PRESSURE - PRESSION - DRUCK | | | | | | | |
| | | 5 bar | 50 bar | 100 bar | 150 bar | 175 bar | 200 bar | 225 bar | 250 bar | 5 bar | 50 bar | 100 bar | 150 bar | 175 bar | 200 bar | 225 bar | 250 bar |
| | | 72 PSI | 725 PSI | 1450 PSI | 2175 PSI | 2540 PSI | 2900 PSI | 3260 PSI | 3630 PSI | 72 PSI | 725 PSI | 1450 PSI | 2175 PSI | 2540 PSI | 2900 PSI | 3260 PSI | 3630 PSI |
| Q Flow In l/min Débit en l/min Fördermenge in l/min | Q | 1,32 | 1,27 | 1,22 | 1,18 | 1,15 | 1,13 | 1,11 | 1,08 | 1,42 | 1,38 | 1,34 | 1,3 | 1,28 | 1,26 | 1,24 | 1,22 |
| | I | 20 | 28,5 | 37,9 | 47,4 | 52,1 | 56,9 | 61,6 | 66,3 | 10,5 | 15 | 20 | 25,1 | 27,6 | 30,1 | 32,6 | 35,1 |
| | S2 | 30 | 30 | 30 | 30 | 30 | 29,9 | 22,4 | 17,1 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | S3 | 50 | 50 | 50 | 50 | 50 | 45,5 | 37,6 | 31,5 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| | S4a | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| I Amperage Intensité en Amperes Stromstärke in Ampere | S4b | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| | Q | 2,63 | 2,48 | 2,33 | 2,17 | 2,1 | 2,02 | 1,95 | 1,88 | 2,84 | 2,72 | 2,59 | 2,47 | 2,41 | 2,35 | 2,29 | 2,23 |
| | I | 20,9 | 38 | 57,1 | 76,1 | 85,6 | 95,2 | 104,7 | 114,2 | 11,4 | 20,5 | 30,6 | 40,7 | 45,7 | 50,8 | 55,8 | 60,9 |
| | S2 | 30 | 30 | 29,5 | 10,4 | 6,8 | 4,6 | 3,3 | 2,4 | 30 | 30 | 30 | 27,4 | 18,9 | 13,6 | 10,1 | 7,7 |
| | S3 | 50 | 50 | 45,1 | 22,6 | 17,1 | 13,3 | 10,6 | 8,6 | 50 | 50 | 50 | 45,7 | 34,8 | 27,2 | 21,8 | 17,8 |
| S1 Permanent Dauerbetrieb | S4a | 600 | 600 | 600 | 600 | 600 | 551 | 390 | 285 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 595 |
| | S4b | 600 | 600 | 600 | 600 | 600 | 409 | 344 | 245 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 553 |
| | Q | 3,93 | 3,64 | 3,33 | 3,02 | 2,87 | 2,72 | | | 4,24 | 4 | 3,74 | 3,49 | 3,37 | 3,24 | 3,12 | 3 |
| | I | 21,8 | 47,6 | 76,2 | 104,8 | 119,1 | 133,5 | | | 12,4 | 26 | 41,2 | 56,3 | 63,9 | 71,5 | 79,1 | 86,7 |
| | S2 | 30 | 30 | 10,3 | 3,2 | 2 | 1,3 | | | 30 | 30 | 26,3 | 9,8 | 6,6 | 4,6 | 3,3 | 2,5 |
| S2 min | S3 | 50 | 50 | 22,6 | 10,5 | 7,7 | 5,9 | | 50 | 50 | 44,4 | 21,3 | 15,9 | 12,2 | 9,6 | 7,8 | |
| | S4a | 600 | 600 | 600 | 389 | 245 | 163 | | 600 | 600 | 600 | 600 | 600 | 505 | 363 | 269 | |
| | S4b | 600 | 600 | 600 | 342 | 209 | 135 | | 600 | 600 | 600 | 600 | 591 | 425 | 316 | 242 | |
| | Q | 5,21 | 4,72 | 4,18 | 3,65 | | | | | 5,74 | 5,36 | 4,94 | 4,54 | 4,34 | 4,14 | | |
| | I | 24,2 | 58,6 | 96,8 | 135 | | | | | 14,2 | 32,4 | 52,7 | 72,9 | 83 | 93,1 | | |
| S3 % (10 min) S4a Number of start / hour 1 sec. work 6 sec. stop Nb de démarrage / h 1 sec. travail 6 sec. arrêt Anzahl der Anläufe / h 1 sek. Arbeit 6 sek. Stillstand S4b Number of start / hour 1 sec. work 1 sec. stop during 20 sec. Rest 40 sec. Nb de démarrage / h 1 sec. travail 1 sec. arrêt pendant 20 sec. Repos 40 sec. Anzahl der Anläufe / h 1 sek. Arbeit 1 sek. Stillstand während 20 Sek. Ruhe 40 Sek. PC (min) Continuous working breaking point (min) Point critique en fonctionnement in/intermpu (min) Kritischer Punkt bei durchgehendem Betrieb | S2 | 30 | 30 | 10,3 | 3,2 | 2 | 1,3 | | 30 | 30 | 26,3 | 9,8 | 6,6 | 4,6 | 3,3 | 2,5 | |
| | S3 | 50 | 50 | 22,6 | 10,5 | 7,7 | 5,9 | | 50 | 50 | 44,4 | 21,3 | 15,9 | 12,2 | 9,6 | 7,8 | |
| | S4a | 600 | 600 | 600 | 518 | 156 | | | | 600 | 600 | 600 | 475 | 310 | 213 | | |
| | S4b | 600 | 600 | 465 | 129 | | | | | 600 | 600 | 600 | 402 | 275 | 196 | | |
| | Q | 6,48 | 5,7 | 4,87 | | | | | | 7,12 | 6,53 | 5,9 | 5,27 | | | | |
| I | 26,7 | 69,6 | 117,4 | | | | | | 16,3 | 39 | 64,2 | 89,4 | | | | | |
| S2 | 30 | 14,3 | 2,2 | | | | | | 30 | 30 | 6,5 | 2,3 | | | | | |
| S3 | 50 | 28 | 8 | | | | | | 50 | 50 | 15,7 | 7,2 | | | | | |
| S4a | 600 | 600 | 259 | | | | | | 600 | 600 | 600 | 243 | | | | | |
| S4b | 600 | 600 | 221 | | | | | | 600 | 600 | 584 | 221 | | | | | |
| Q | 7,72 | 6,56 | | | | | | | 8,49 | 7,6 | 6,17 | | | | | | |
| I | 28,9 | 82,9 | | | | | | | 18,4 | 46,8 | 94,3 | | | | | | |
| S2 | 30 | 7,6 | | | | | | | 30 | 17,5 | 1,9 | | | | | | |
| S3 | 50 | 18,5 | | | | | | | 50 | 32,9 | 6,4 | | | | | | |
| S4a | 600 | 600 | | | | | | | 600 | 600 | 204 | | | | | | |
| S4b | 600 | 600 | | | | | | | 600 | 600 | 189 | | | | | | |
| Q | | | | | | | | | | | | | | | | | |
| I | | | | | | | | | | | | | | | | | |
| S2 | | | | | | | | | | | | | | | | | |
| S3 | | | | | | | | | | | | | | | | | |
| S4a | | | | | | | | | | | | | | | | | |
| S4b | | | | | | | | | | | | | | | | | |



MICRO POWER PACKS.



MICRO POWER PACKS " CODING CHART "
 DIRECT CURRENT VERSION 3G SERIES 0



MICRO POWER PACKS.

| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | |
|--|---|---|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBOLES SINNBILDER |
| <p>STANDARD MOUNTING</p> <p>MONTAGE STANDARD</p> <p>STANDARDMONTAGE</p> | <p>M 14 x 150 effective depth Prof. utile 12 Nutztiefe</p> <p>A</p> <p>VNF 1G: 63 VNF 2G: 50,5 VNO : 88,6 VLB : 88,6</p> <p>B</p> <p>Sealed Plombé 78 Plombiert</p> <p>Not sealed Non plombé 67,5 Nicht Plombiert</p> <p>M 8 x 125 (x2)</p> | |
| <p>Mounting with restrictor behind the pilot direct valve (VNF, VNO, VLB, Proportional)</p> <p>Montage avec Freineur derrière la Valve à Clapet Pilote (VNF VNO VLB Proportionnelle)</p> <p>Montage mit Bremsventil hinter dem gesteuerten Ventil (VNF, VNO,VLB, Proportional)</p> | | <p>4</p> <p>XI Signe Zeichen</p> |
| <p>Plug and accessories on port 3</p> <p>Bouchon et Accessoires sur Orifice 3</p> <p>Stopfen und Zubehör auf Anschluss 3</p> | | <p>X</p> <p>XI Signe Zeichen</p> |

ACCESSORIES FOR INCORPORATED MOUNTING ON 3G MICRO - POWER PACKS



MICRO POWER PACKS.
PROVISOIRE.

| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | |
|---|--|---|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBLES SINNBILDER |
| <p>Mounting with 4 Ways 2 Positions Electro valves</p> <p>Montage avec Valve 4 Voies 2 Positions</p> <p>Einbau mit Elektroventil 4 Wege 2 Positionen</p> | | <p>7 VIII Signe Signe Zeichen</p> |
| <p>Mounting with Proportional valve (10 or 27 rev / min)</p> <p>Montage avec Valve Proportionnelle (10 ou 2 l / min)</p> <p>Einbau mit Proportionalventil (10 oder 27 U / min)</p> | | <p>90 VIII Signe Signe Zeichen</p> |
| <p>Mounting with compensated valve flow limiter on port 3 (Ø 1,9 max)</p> <p>Montage avec Limiteur de Débit Compensé sur Orifice 3 (Ø 1,9 Maxi)</p> <p>Montage mit Kompensiertem Mengenbegrenzer auf Anschluss 3 (Ø 1,9 maxi)</p> | | <p>XIII Signe Signe Zeichen</p> |

**ACCESSORIES FOR INCORPORATED MOUNTING
ON 3G MICRO - POWER PACKS**



MICRO POWER PACKS.

| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | |
|--|--|--|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBOLS SINNBILDER |
| <p>Mounting with compensated flow limiter on port 31 (Ø 2 mini)</p> <p>Montage avec Limiteur de Débit Compensé sur Orifice 31 (Ø 2 Mini)</p> <p>Montage mit Kompensiertem Mengenbegrenzer auf Anschluss 31 (Ø 2 mini)</p> | | <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 5px;"> 7 VIII Signe Signe Zeichen </div> |
| <p>Mounting with compensated flow limiter on port 31 and return on port 2 through port 21</p> <p>Montage avec Limiteur de Débit Compensé sur Orifice 31 plus Retour sur Orifice 2 par l'Orifice 21</p> <p>Montage mit Kompensiertem Mengenbegrenzer auf Anschluss 31 + Rücklauf auf Anschluss 2 durch Anschluss 21</p> | | <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 5px;"> XII Signe Signe Zeichen </div> |
| <p>Mounting with compensated flow limiter on port 31 and limiter on port 21</p> <p>Montage avec Limiteur de Débit Compensé sur Orifice 31 plus Limiteur sur Orifice 21</p> <p>Montage mit Kompensiertem Mengenbegrenzer auf Anschluss 31 + Mengenbegrenzer auf Anschluss 21</p> | | <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-bottom: 5px;"> XI Signe Signe Zeichen </div> |

ACCESSORIES FOR INCORPORATED MOUNTING ON 3G MICRO-POWER PACKS



MICRO POWER PACKS.

| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | |
|---|--|---|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBOLES SINNBILDER |
| <p>Back feeding on port 2 through 21</p> <p>Montage avec Re-Aspiration sur Orifice 2 par 21</p> <p>Montage mit Ansaugung auf Anschluss 2 durch 21</p> | | <div style="border: 1px solid black; padding: 2px; width: fit-content;"> <p>5 XII Signe Signe Zeichen</p> </div> |
| | | |
| | | |

ACCESSORIES FOR INCORPORATED MOUNTING ON 3G MICRO-POWER PACKS



MICRO POWER PACKS.

| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | |
|---|---|----------------------------------|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBOLS SINNBILDER |
| <p>Mounting with 4 Ways 3 Positions Electro valve</p> <p>Montage avec Valve 4 Voies 3 Positions</p> <p>Einbau mit Elektroventil 4 Wege 3 Positionen</p> | | |
| <p>Mounting with handpump</p> <p>Montage avec Pompe à Main</p> <p>Einbau mit Handpumpe</p> | | |
| | <p>ATTENTION: The hand pump is only an emergency drive and is not protected by the relief valve of the micro power packs.</p> <p>ATTENTION: La pompe main est destinée à une fonction de secours uniquement, et non protégée par le limiteur de pression de la Micro-Centrale.</p> <p>VORSICHT: Die handpumpe ist nur für eine Hilfsfunktion bestimmt und nicht D.B.V des Mikro-Aggregats geschützt.</p> | |

ACCESSORIES FOR INCORPORATED MOUNTING ON 3G MICRO-POWER PACKS



MICRO POWER PACKS.

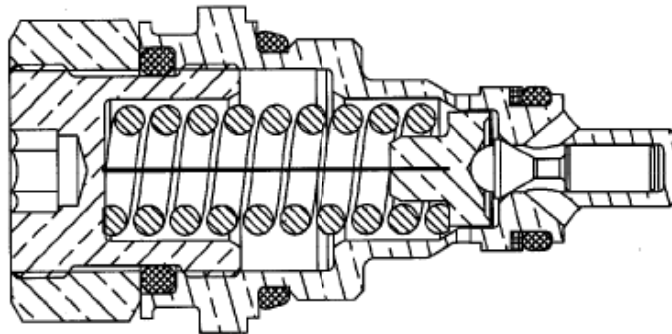
| ACCESSORIES - ACCESSOIRES - ZUBEHÖR | | | | | | | | | | | | |
|--|--|---|----------|----------|-----|------|-------|-------|-------|-------|---------|---------|
| DESCRIPTION DESIGNATION BEZEICHNUNG | DIMENSIONS ENCOMBREMENTS ABMESSUNGEN | SYMBOLS SYMBOLS SINNBILDER | | | | | | | | | | |
| <p>Mounting with CETOP 3 block</p> <p>Montage avec bloc CETOP 3</p> <p>Einbau mit Block CETOP 3</p> | | <table border="1"> <tr> <td>6</td> <td>6</td> </tr> <tr> <td>XII</td> <td>XIII</td> </tr> <tr> <td>Signe</td> <td>Signe</td> </tr> <tr> <td>Signe</td> <td>Signe</td> </tr> <tr> <td>Zeichen</td> <td>Zeichen</td> </tr> </table> | 6 | 6 | XII | XIII | Signe | Signe | Signe | Signe | Zeichen | Zeichen |
| 6 | 6 | | | | | | | | | | | |
| XII | XIII | | | | | | | | | | | |
| Signe | Signe | | | | | | | | | | | |
| Signe | Signe | | | | | | | | | | | |
| Zeichen | Zeichen | | | | | | | | | | | |

ACCESSORIES FOR INCORPORATED MOUNTING
ON **3G** MICRO - POWER PACKS



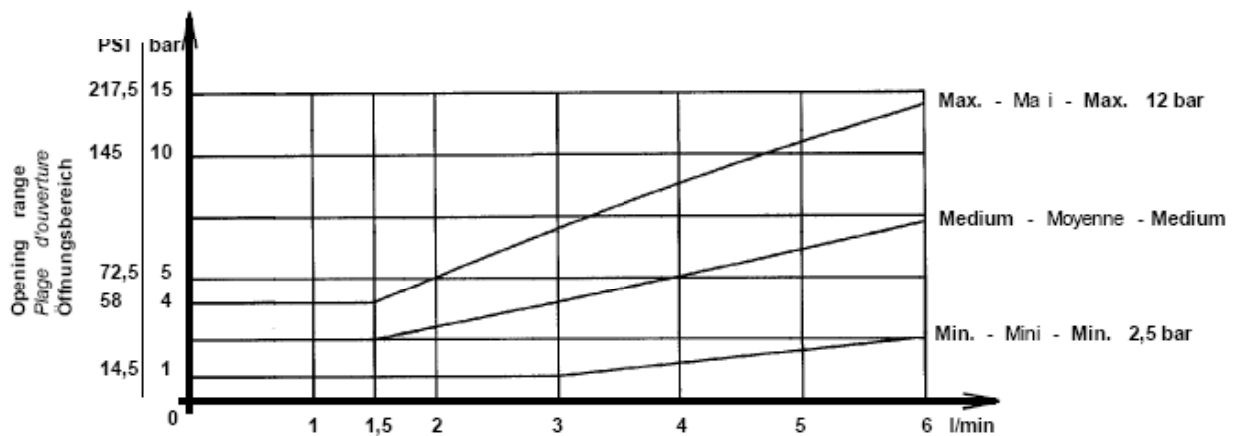
MICRO POWER PACKS.

| | |
|---------|--|
| XV | |
| Signe | |
| Signe | |
| Zelchen | |



Reference : **K.5092915**

Opening range 50 to 300 bars



Curves made with the oil (cst) to C

ADJUSTABLE RELIEF VALVE

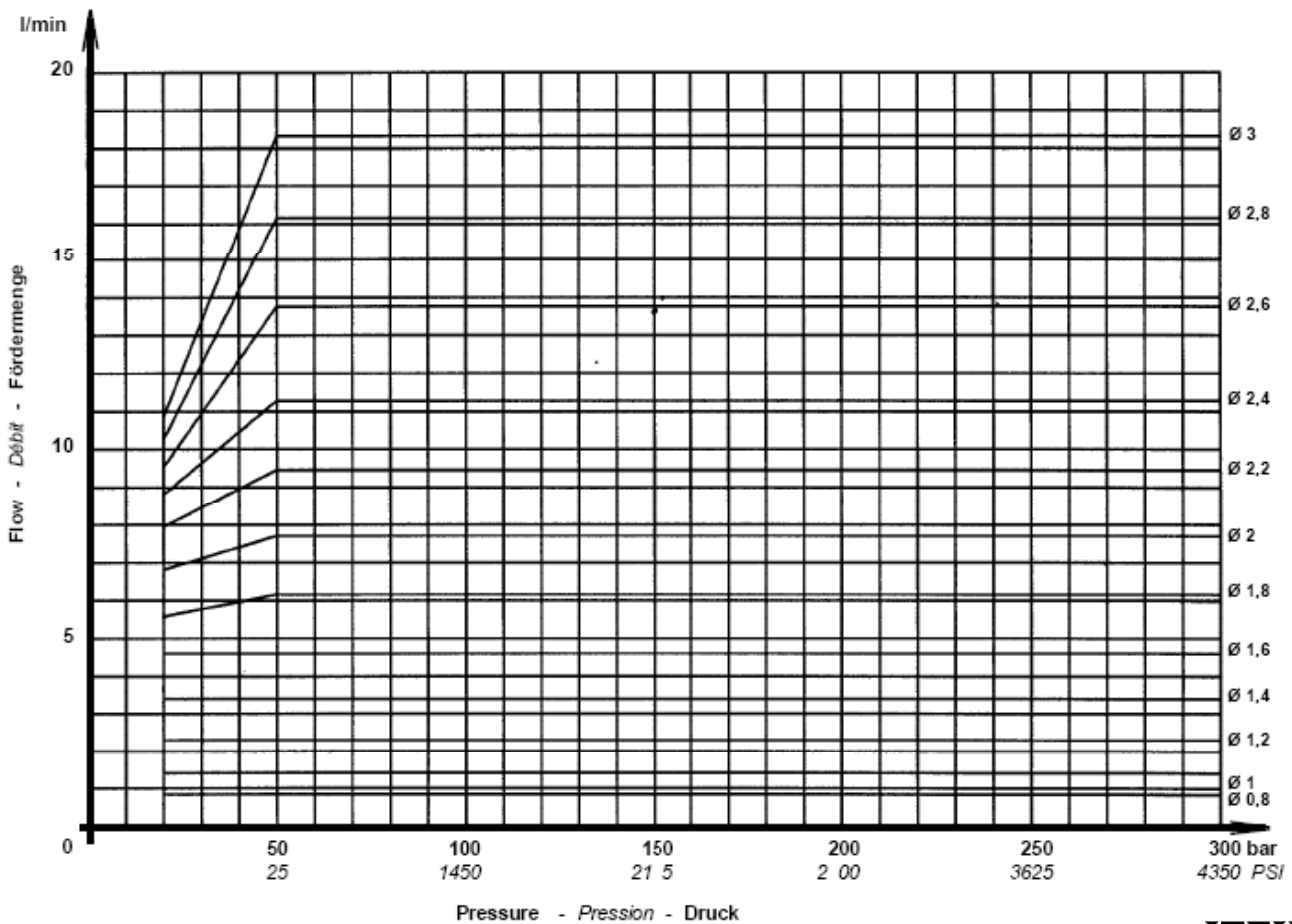
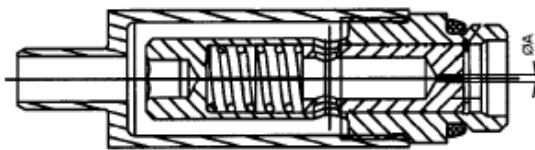
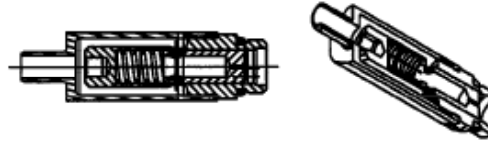
K.5092915



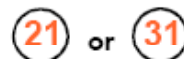
MICRO POWER PACKS.



| References Références Referenzen | Ø A |
|--|-----|
| K.5094061 | 0,8 |
| K.5092992 | 1 |
| K.5092993 | 1,2 |
| K.5092994 | 1,4 |
| K.5092995 | 1,6 |
| K.5092996 | 1,8 |
| K.5092997 | 2 |
| K.5092998 | 2,2 |
| K.5092999 | 2,4 |
| K.5093000 | 2,6 |
| K.5093001 | 2,8 |
| K.5093002 | 3 |

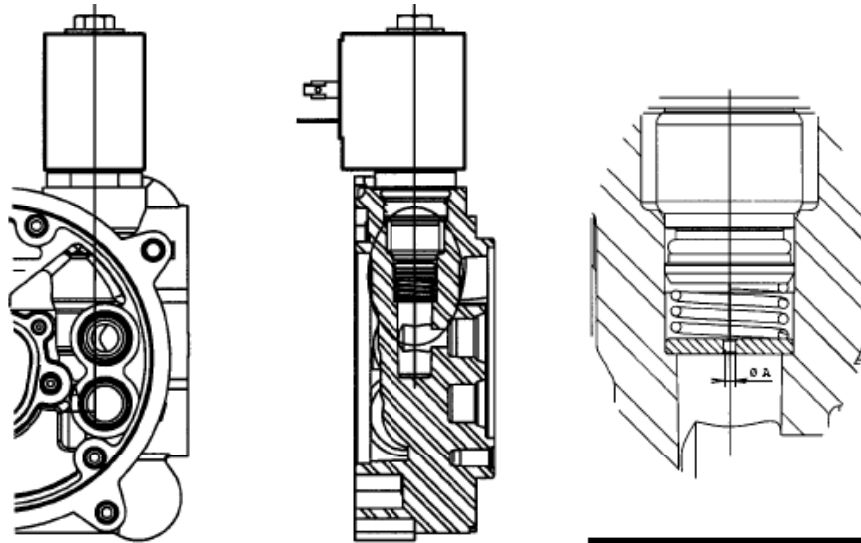


COMPENSATED FLOW LIMITOR on PORTS

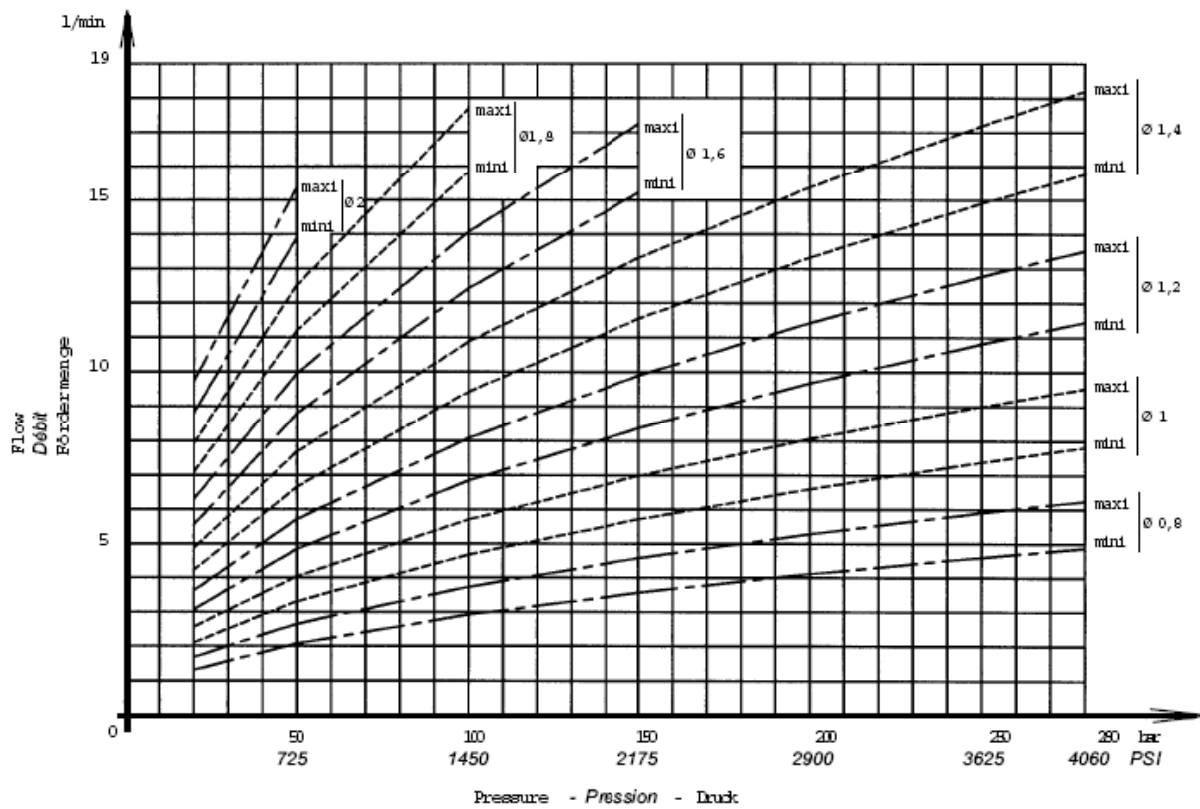


MICRO POWER PACKS.

4
X
Signe
Signe
Zeichen



| Code Code Kode | References Références Referenzen | Ø A |
|----------------------|--|-----|
| A | K5093823 | 0,8 |
| B | K5093824 | 1 |
| C | K5093825 | 1,2 |
| E | K5093826 | 1,4 |
| F | K5093827 | 1,6 |
| G | K5093828 | 1,8 |
| J | K5093829 | 2 |



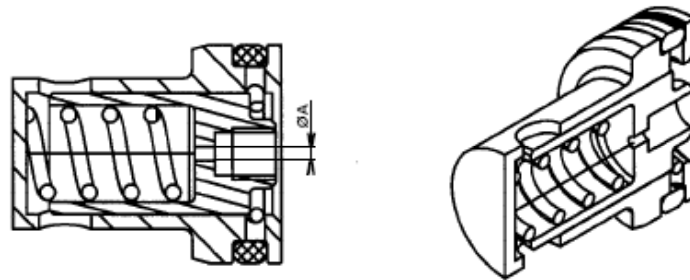
FLOW RESTRICTOR on PORT

3

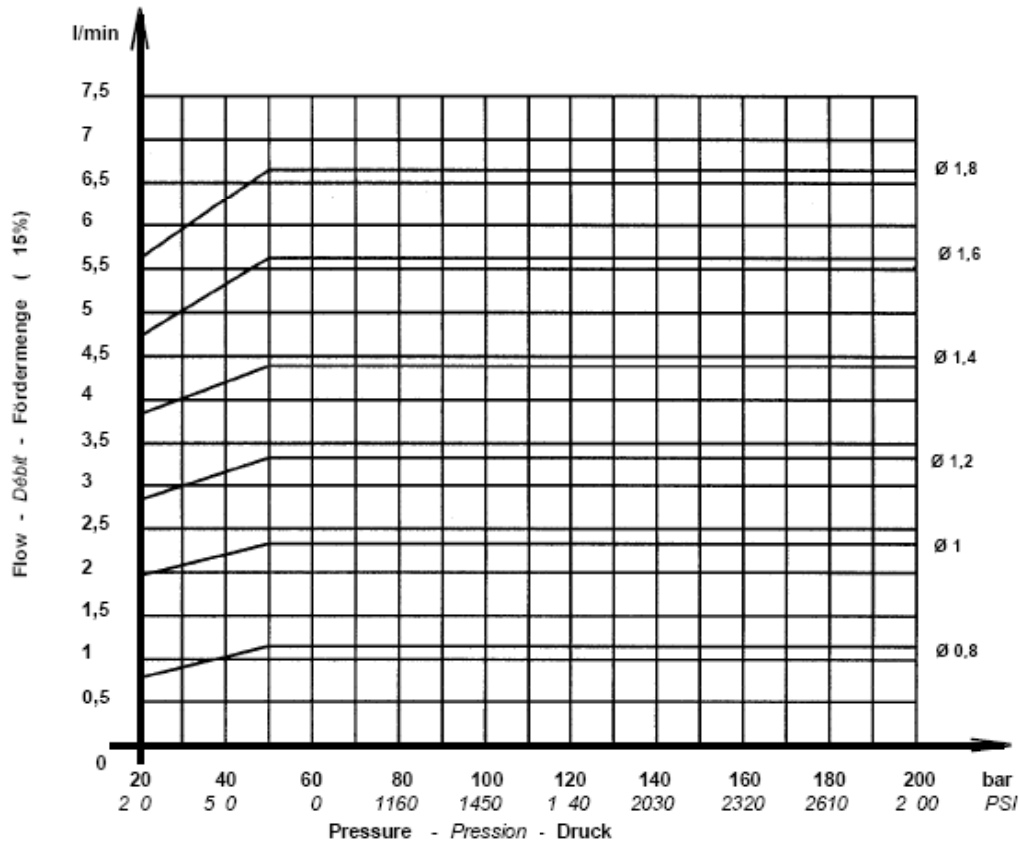


MICRO POWER PACKS.

3
 XI
 Signe
 Signe
 Zeichen



| References Références Referenzen | Ø A |
|--|-----|
| K.5093591 | 0,8 |
| K.5093784 | 1 |
| K.5093785 | 1,2 |
| K.5093786 | 1,4 |
| K.5093787 | 1,6 |
| K.5093788 | 1,8 |

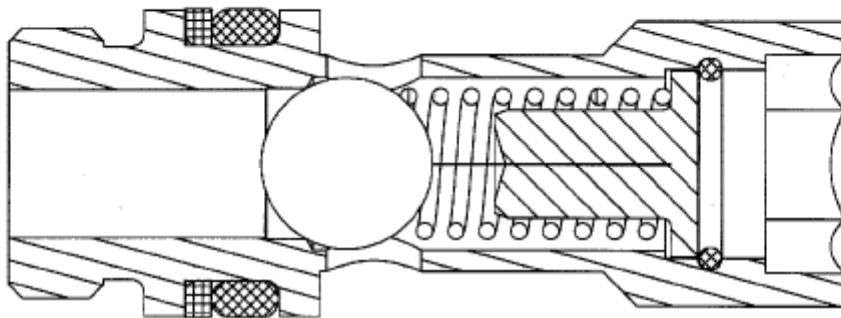


COMPENSATED FLOW LIMITOR on PORT

3

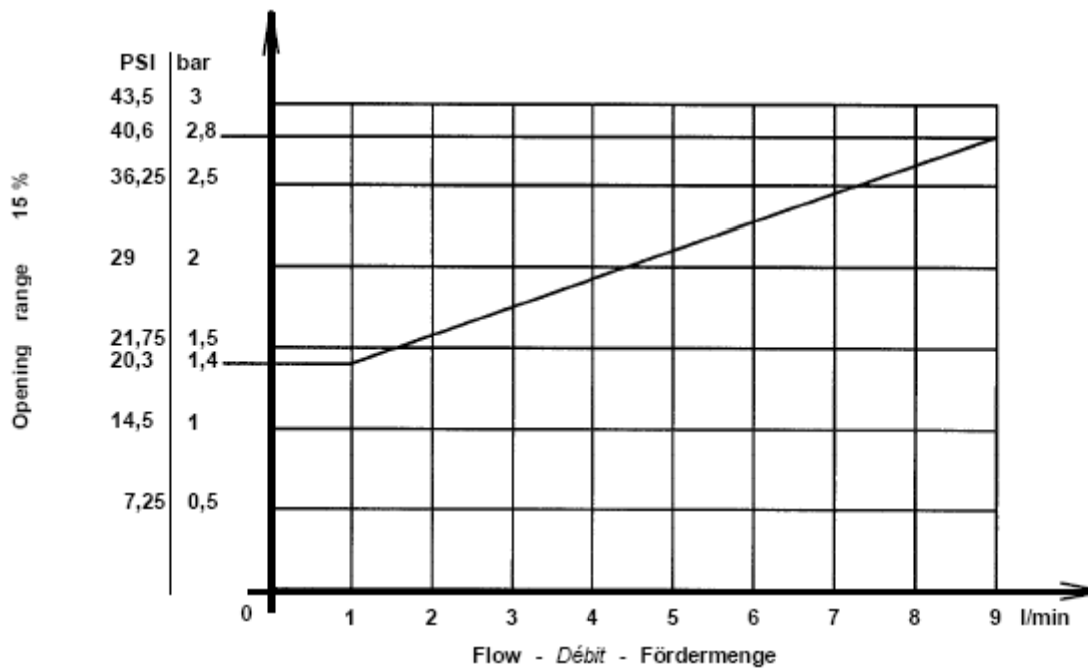


MICRO POWER PACKS.



Reference : **K.5092284**

Pressure Loos



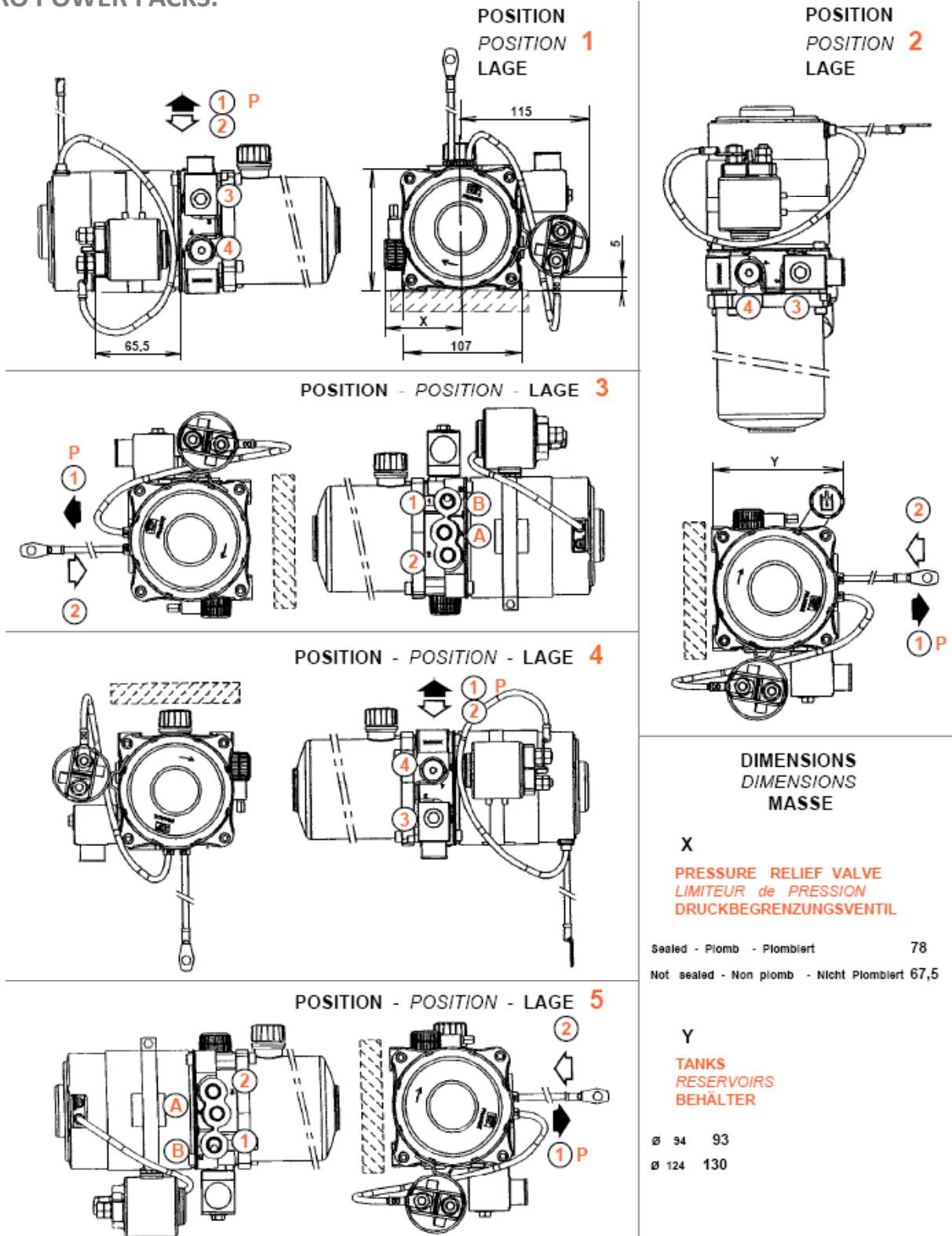
Curves made with the oil (cSt) to C

CHECK VALVE

K.5092284



MICRO POWER PACKS.



FIXING POSITIONS DIRECT and ALTERNATING CURRENT of MICRO POWER PACKS

VERSION **3G** SERIES **0**

