

DZ518(GV2)Motor protection circuit breaker

■Main Purpose



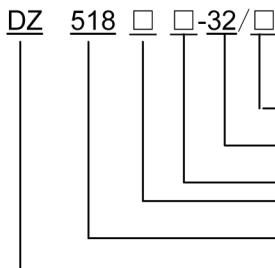
DZ518(GV2-ME)

DZ518 (GV1,GV2,GV3)the series electric motor protection circuit breaker,uses the modular design,the contour is artistic,the volume is small,breaks protects,inside sets Hot Relay,the function is strong,the versatility is good.The DZ518 series conforms to IEC60947.2 and IEC60947-4.1 as well as the EN60947-1 standard.The switch and the contact device may compose the electric motor is direct starts.The DZ518 series outer covering protection rankmay achieve IP65.This series pooled three types model product:DZ518(GV2-M,ME) is the electric motor belt thermomagnetism protection circuit breaker which the button controls; DZ518-(GV2-RS) is the electric motor belt thermomagnetism protection circuit breaker which the changeover switch controls;DZ-518-(GV2-LS,LE) is the electric motor belt magnetism protection circuit breaker which the changeover switch controls (does not bring hot protection).



DZ518(GV2-M)

■The model and meaning



The rated current of disjainter(A)
The grade rated current of case(A)
New type Lemore type
The operation means of switch
Design number
Plastic shell breaker



DZ518(GV2-RS,LS,LE)



DZ518(GV1-M)

■ DZ518 Air switch of the motor

| DZ518(GV2-M)(ME)(P) | DZ518(GV2-RS) | DZ518(GV2-LS)(LE) |
|---------------------|-----------------|-------------------|
| MO1C 0.1-0.16 | RS01C 0.1-0.16 | |
| M02C 0.16-0.25 | RS02C 0.16-0.25 | |
| M03C 0.25-0.40 | RS03C 0.25-0.40 | LS03 0.25-0.40 |
| M04C 0.40-0.63 | RS04C 0.40-0.63 | LS04 0.40-0.63 |
| M05C 0.63-1 | RS05C 0.63-1 | LS05 0.63-1 |
| M06C 1-1.6 | RS06C 1-1.6 | LS06 1-1.6 |
| M07C 1.6-2.5 | RS07C 1.6-2.5 | LS07 1.6-2.5 |
| M08C 2.5-4 | RS08C 2.5-4 | LS08 2.5-4 |
| M10C 4-6.3 | RS10C 4-6.3 | LS10 4-6.3 |
| M14C 6-10 | RS14C 6-10 | LS14 6-10 |
| M16C 9-14 | RS16C 9-14 | LS16 9-14 |
| M18C 10-16 | RS18C 10-16 | LS18 10-16 |
| M20C 13-18 | RS20C 13-18 | LS20 13-18 |
| M21C 17-23 | RS21C 17-23 | LS21 17-23 |
| M22C 20-25 | RS22C 20-25 | LS22 20-25 |
| M32C 24-32 | RS32C 24-32 | |

DZ518(GV2)Motor protection circuit breaker

The rated power of three-phase electromotor controlled by breaker(GV2 motor circuit breaker)

| The adjusting range of rated current ie(A) | The standard power of three-phase electromotor KW.AC-350HZ/60HZ | | | | | |
|--|---|------|------|------|------|------|
| | 230/240V | 400V | 415V | 440V | 500V | 690V |
| 0.1-0.16 | 230/240V | 400V | 415V | 440V | 500V | 690V |
| 0.16-0.25 | - | - | - | - | - | - |
| 0.25-0.4 | - | - | - | - | - | - |
| 0.4-0.63 | - | - | - | - | - | 0.37 |
| 0.63-1 | | | | | 0.37 | 0.37 |
| 1-1.6 | | | 0.37 | | 0.55 | 0.75 |
| 1.6-2.5 | 0.37 | 0.75 | 0.75 | 1.1 | 1.1 | 1.5 |
| 2.5-4 | 0.75 | 1.5 | 1.5 | 1.5 | 2.2 | 3 |
| 4-6.3 | 1.1 | 2.2 | 2.2 | 3 | 3.7 | 4 |
| 6-10 | 2.2 | 4 | 4 | 4 | 5.5 | 7.5 |
| 9-14 | 3 | 5.5 | 5.5 | 7.5 | 7.5 | 9 |
| 13-18 | 4 | 7.5 | 9 | 9 | 9 | 11 |
| 17-23 | 5.5 | 11 | 11 | 11 | 11 | 15 |
| 20-25 | 5.5 | 11 | 11 | 11 | 15 | 18.5 |
| 24-32 | 7.5 | 15 | 15 | 15 | 18.5 | 23 |

The disjoining current commuting value of breaker in instant magnetic field



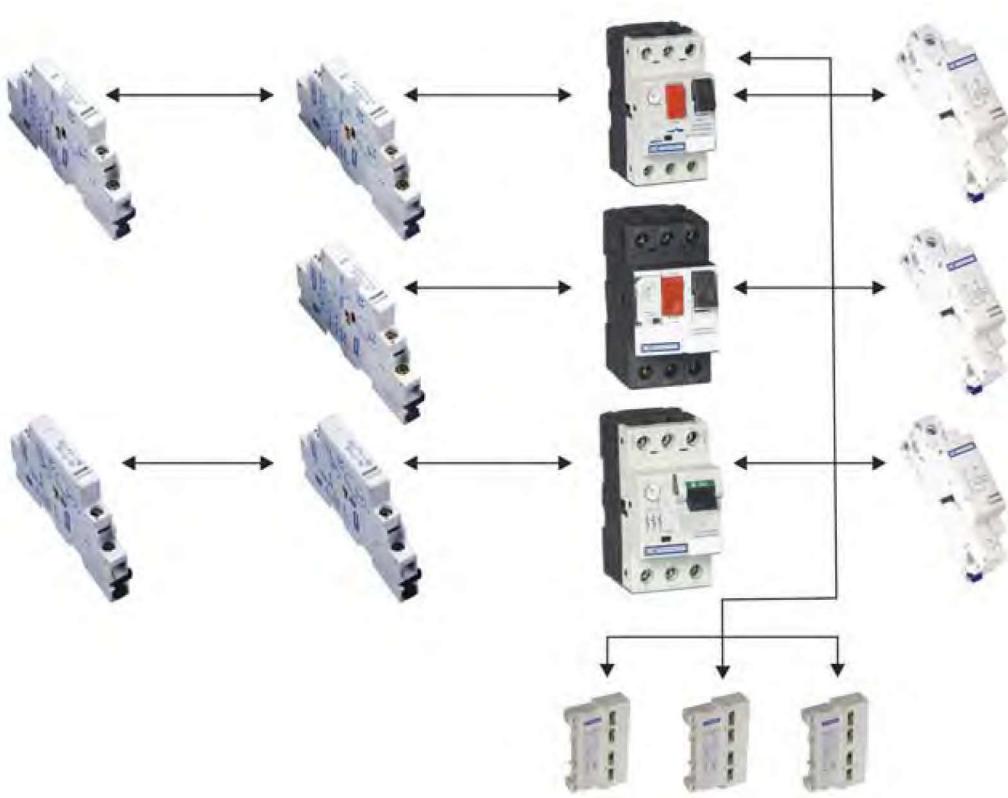
DZ518(GV2-P)



DZ518(GV2-MC../GV4)

| Rated current InA | The adjusting range commuting current for components A | The disjoining current commuting value in instant field InA |
|-------------------|--|---|
| 0.16 | 0.1-0.16 | 1.5 |
| 0.25 | 0.16-0.25 | 2.4 |
| 0.4 | 0.25-0.4 | 5 |
| 0.63 | 0.4-0.63 | 8 |
| 1 | 0.63-1 | 13 |
| 1.6 | 1-1.6 | 22.5 |
| 2.5 | 1.6-2.5 | 33.5 |
| 4 | 2.5-4 | 51 |
| 6.3 | 4-6.3 | 78 |
| 10 | 6-10 | 138 |
| 14 | 9-14 | 170 |
| 18 | 13-18 | 223 |
| 23 | 17-23 | 327 |
| 25 | 20-25 | 327 |
| 32 | 24-32 | 416 |

■ Accessories



■ Contacts of accessories

| Name of accessories | Code | The type of contacts | | Installation place | |
|--|--------|-------------------------|----|---|--|
| Instantaneous auxiliary contacts | AE1 | 1NO/NC | | The front of breaker(1pc can be installed) | |
| | AE11 | 1NO+NC | | | |
| | AE20 | 2NO | | | |
| | AN11 | 1NO+1NC | | | |
| | AN20 | 2NO | | | |
| Fault singal contacts+Instantaneous auxiliary contacts | AD1010 | Constant-open trouble | NO | The left of breaker(4pcs can be installed) | |
| | AD1001 | | NC | | |
| | AD0110 | Constant-closed trouble | NO | | |
| | AD0101 | | NC | | |
| Short circuit contacts | Am11 | INO,1NC | | | |

DZ518(GV2)Motor protection circuit breaker

Electric disjointing

| Name of accessories | Code | Voltage/V | | Installation place |
|---------------------------------------|-------|-----------|------|--|
| Lack-voltage disjointing | AU115 | 110-127V | 50HZ | The right of breaker(1pc can be installed) |
| | AU225 | 220-240V | 50HZ | |
| | AU385 | 380-415V | 50HZ | |
| Division disjointing | AS115 | 110-127V | 50HZ | The right of breaker(1pc can be installed) |
| | AS225 | 220-240V | 50HZ | |
| | AS385 | 380-415V | 50HZ | |
| Be used to the release of low voltage | AX115 | 110-127V | 50HZ | |
| | AX225 | 220-240V | 50HZ | |
| | AX385 | 380-415V | 50HZ | |

The protective case of breaker

| Name of accessories | The protection grade of case | Code |
|-----------------------------|------------------------------|------|
| External installation shell | IP41 | MC01 |
| | IP55 | MC02 |
| | IP65 | MC03 |

■ The external fixing dimension

1.The outline and fixing dimension of breaker(GV2 motor circuit breaker)(refer to chart 2,3).

2.The breaker(GV2 motor circuit breaker) adopts the standard conductor rail installation,the conductor rail should meet the A2.1TH35-7.5 type installation standard of JB6525.

3.The external installation dimension of GV2 motor circuit breaker(refer to chart4.5).

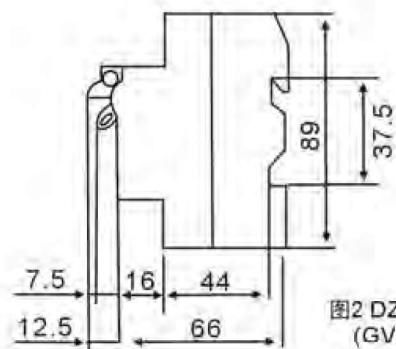
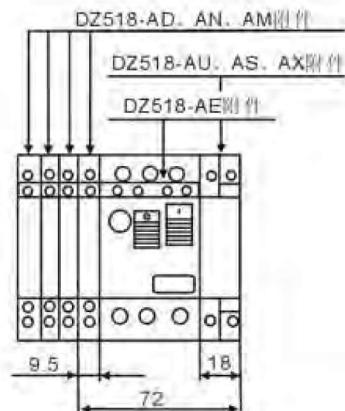


图2 DZ518-RS, LS
(GV2-RS, LS)

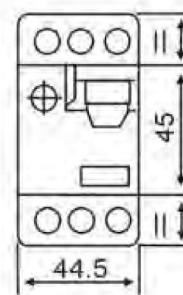


图4 DZ518-AN... AD.... AM..
DZ518-AU... AS... AX...
DZ518-AE..

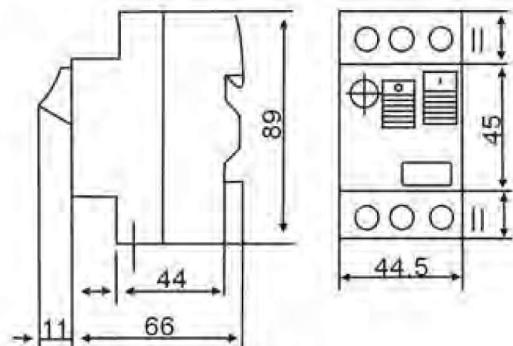


图3 DZ518-M
(GV2-M)

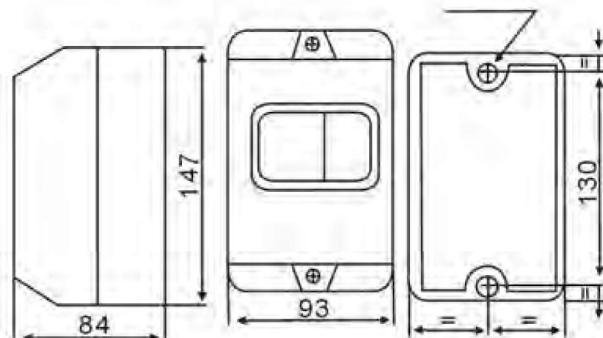
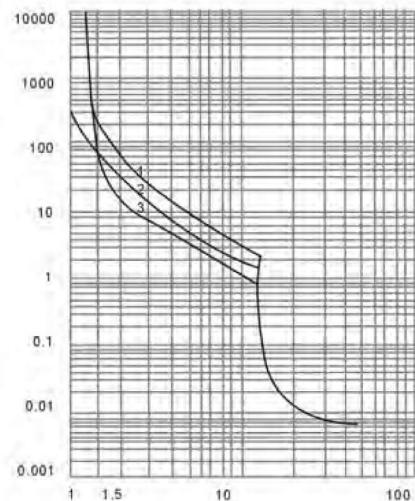


图5 DZ518-MC(GV2-MC/GV4)

4.The character curve of disjoining

The average work time according to the multiple of commuting current.

- (1) Begin with cold state,3poles
- (2) Begin with cold state,2poles
- (3) Begin with hot state,3poles



DZ518(GV2)Motor protection circuit breaker

■ Main Technical Parameters

1. Rated insulation voltage $Ui(V)$:690;
2. Rated work voltage $Ue(V)$:230/240、400/415、440、500、690;
3. Rated frequency HZ:50/60;
4. The grade rated current of shell $Inm(A)$:32;
5. The rated voltage of disjainter $In(A)$;
6. The adjusting range of commuting current(A);
7. The cutting capacity for rated limit short circuit $Icu(KA)$;
8. The cutting capacity for rated work short circuit $Ics(KA)$;
9. The bearable voltage for rated shock $Uimp(V)$:8000.

| Rated Current $In(A)$ | The adjusting range of commuting current | The cutting capacity for rated limit short circuit Icu ,the cutting capacity for rated work short circuit Ics | | | | | | | | | | The distance of arcs(mm) | |
|-----------------------|--|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------|--|
| | | 230/240V | | 400/415V | | 400V | | 500V | | 690V | | | |
| | | $Icu(KA)$ | $Ics(KA)$ | $Icu(KA)$ | $Ics(KA)$ | $Icu(KA)$ | $Ics(KA)$ | $Icu(KA)$ | $Ics(KA)$ | $Icu(KA)$ | $Ics(KA)$ | | |
| 0.16 | 0.10-0.16 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 0.25 | 0.16-0.25 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 0.4 | 0.25-0.4 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 0.63 | 0.4-0.63 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 1 | 0.63-1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 1.65 | 1-1.6 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 40 | |
| 2.5 | 1.6-2.5 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 3 | 2.25 | 40 | |
| 4 | 2.5-4 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 3 | 2.25 | 40 | |
| 6.3 | 4-6.3 | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 50 | 3 | 2.25 | 40 | |
| 10 | 6-10 | 100 | 100 | 100 | 100 | 15 | 15 | 10 | 10 | 3 | 2.25 | 40 | |
| 14 | 9-14 | 100 | 100 | 15 | 7.5 | 8 | 4 | 6 | 4.5 | 3 | 2.25 | 40 | |
| 18 | 13-18 | 100 | 100 | 15 | 7.5 | 8 | 4 | 6 | 4.5 | 3 | 2.25 | 40 | |
| 23 | 17-23 | 50 | 50 | 15 | 6 | 6 | 3 | 4 | 3 | 3 | 2.25 | 40 | |
| 25 | 20-25 | 50 | 50 | 15 | 6 | 6 | 3 | 4 | 3 | 3 | 2.25 | 40 | |
| 32 | 24-32 | 50 | 50 | 10 | 5 | 6 | 3 | 4 | 3 | 3 | 2.25 | 40 | |

DZ518(GV2)Motor protection circuit breaker

The characteristic of over-current action protection

1. The action characteristic breaker(GV2 motor circuit breaker) when every phase load is in balance

| The multiple of rated current | Starting state | Stipulated time | Due result | The temperature of ambient air |
|-------------------------------|--|-------------------------|----------------|---|
| 1.05 | Cold state | $t \leq 2h$ | No disjounting | $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ |
| 1.2 | Hot state(rise up to the stipulated current after following the test NO.1) | $t < 2h$ | Disjounting | |
| 1.5 | One-time commuting current starts after the hot balance | $t < 2\text{min}$ | Disjounting | |
| 7.2 | Cold state | $2 < t \leq 10\text{s}$ | Disjounting | |

2. The action characteristic of breaker(GV2 motor circuit breaker) when every phase load is in balance(phase-broken)

| The multiple of rated current | | Starting state | Stipulated time | Due result | The temperature of ambient air |
|-------------------------------|------------------|----------------|-----------------|----------------|---|
| Any two phases | The third phases | | | | |
| 1 | 0.9 | Cold state | $t \leq 2h$ | No disjounting | $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ |
| 1.15 | 0 | | $t < 2h$ | Disjounting | |