

Manual Motor Starters

- Complete Ranges up to 100 Amps
- ON-OFF-Trip Three Position Operator
- Unique Handle Lock in the OFF Position
- Class 10, 20 Overload Trip Characteristics
- DIN Rail or Back Panel Mounting
- Finger Safe Terminals
- Trip Test



With
Extended
Warranty



Carlo Gavazzi GMS Manual Motor Starters provide complete ranges up to 100A



32AF

0.1~0.16... 22~32A (16 step)

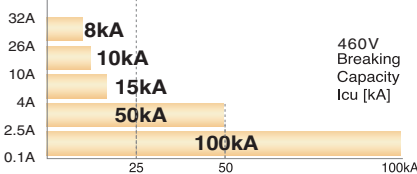
GMS 32S



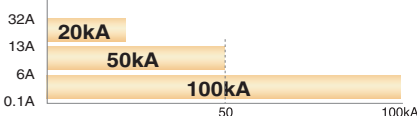
Standard

GMS 32H
GMS 32HI

High break
Magnetic release



460V
Breaking
Capacity
Icu [kA]



6~10... 45~63A (9 step)

GMS 63S



Standard

GMS 63H
GMS 63HI
GMS 63HL

High break
Magnetic release
Class 20

up to 100A



GMS

63AF

100AF



460V
Breaking
Capacity
I_{cu} [kA]

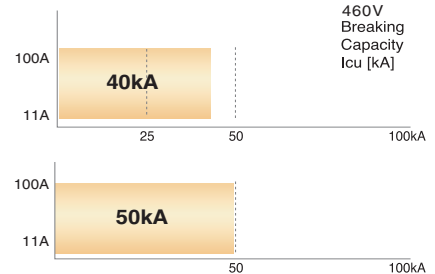
11~17... 80~100A (10 step)

GMS 100S

Standard

GMS 100H
GMS 100HI
GMS 100HL

- High break
- Magnetic release
- Class 20



460V
Breaking
Capacity
I_{cu} [kA]

Specifications are subject to change without notice.

Carlo Gavazzi GMS Manual Motor Starters deliver more efficiency through various functions and compact design

[Scale 1:1]



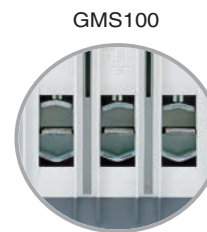
Handle Lock



Dial cover



Terminals

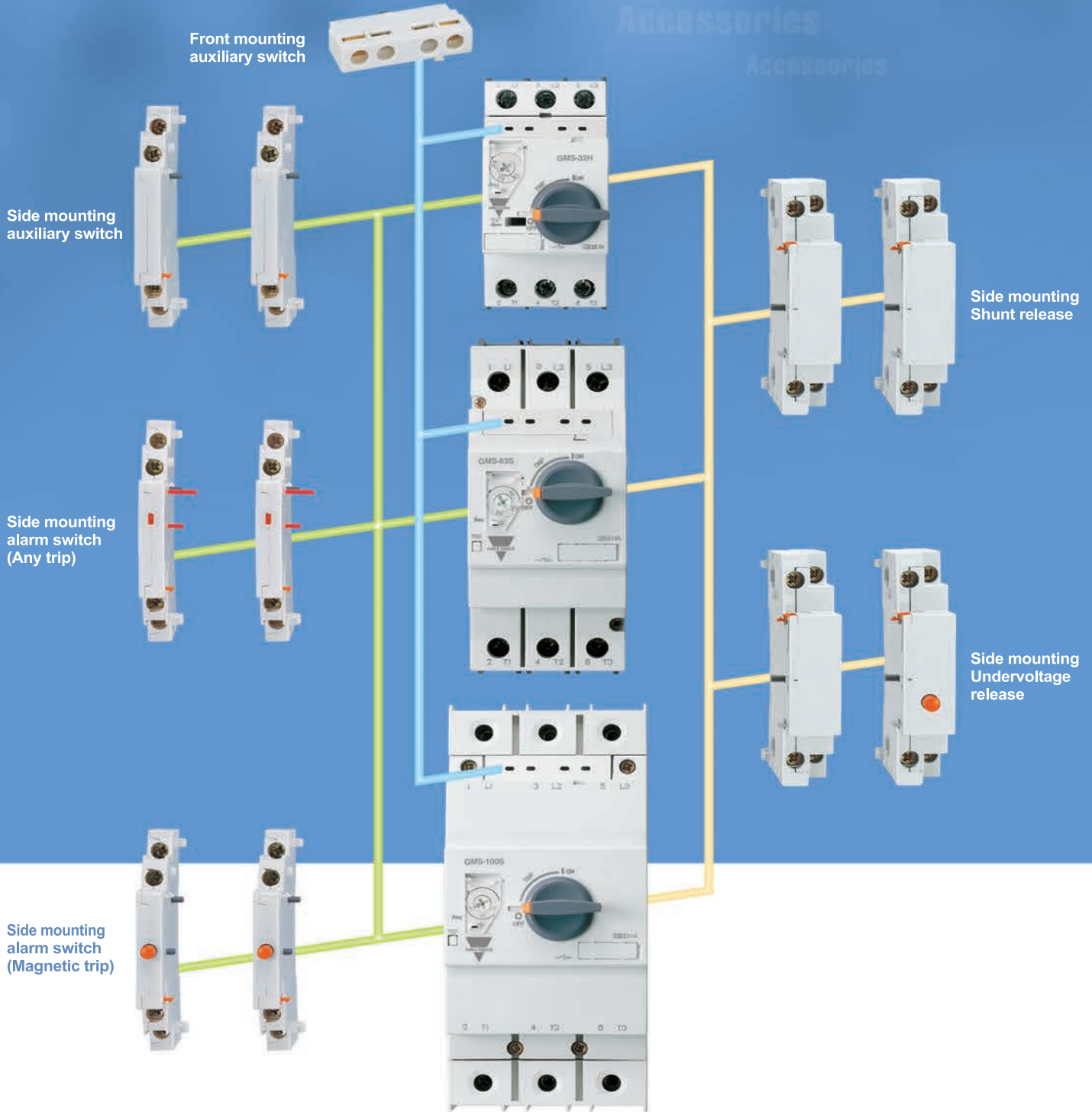


Common use from 32 to 100AF



A wide variety of accessories enables a flexible response to changes in specifications

Accessories



Function

- Protection of group installation
- Protection of circuits
- Motor protection
- Starter protection
- Wide range of ambient temperature compensation
- Phase failure protection



Feature

- 45mm width up to 32A, 55mm width up to 63A and 70mm width rated to 100 amps
- Three position operator: ON-OFF-TRIP (Only 100AF is applied)
- Complete range of common accessories
- Handle lock in the OFF position
- Class 10,20 overload trip characteristics
- Trip test
- Finger safe terminal
- DIN rail and screw mounting

Standard

- The components fulfill the international standard IEC 60947
- The devices can be used as Manual Motor Starter in Group Installations According to UL508.



KEMA



IEC 60947

UL 508, UL 508 Type E

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Product Selection Guide

Quick selection table ... IEC rating



| Frame | | | 32AF | | | | | | | | | | | | | | | | | | | |
|---|---|--------------------------------------|------------------------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Type | Current adjustable type | | GMS-32S | | | | | GMS-32H | | | | | GMS-32HI | | | | | | | | | |
| | Instantaneous type | | - | | | | | - | | | | | - | | | | | | | | | |
| Class 20 | | | - | | | | | - | | | | | - | | | | | | | | | |
| Breaking capacity | | | Standard | | | | | High break | | | | | High break | | | | | | | | | |
| Handle Type | | | Rocker | | | | | Rocker | | | | | Rotary | | | | | | | | | |
| Number of poles | | | 3 | | | | | 3 | | | | | 3 | | | | | | | | | |
| Rated operational voltage (Ue) | | | Up to 690V | | | | | Up to 690V | | | | | Up to 690V | | | | | | | | | |
| Rated frequency | | | 50/60 Hz | | | | | 50/60 Hz | | | | | 50/60 Hz | | | | | | | | | |
| Rated insulation voltage (Ui) | | | 690V | | | | | 690V | | | | | 690V | | | | | | | | | |
| Rated impulse voltage (Uimp) | | | 6kV | | | | | 6kV | | | | | 6kV | | | | | | | | | |
| Utilization category | | | IEC 60 947-2 (Breaker) | | | | | Cat. A | | | | | Cat. A | | | | | | | | | |
| | | | IEC 60 947-4 (Motor starter) | | | | | AC 3 | | | | | AC 3 | | | | | | | | | |
| Shock resistance (IEC 68 Part 2-27) | | | 25g | | | | | 25g | | | | | 25g | | | | | | | | | |
| Degree of protection (IEC 60 529) | | | IP 20 | | | | | IP 20 | | | | | IP 20 | | | | | | | | | |
| Instantaneous short circuit release | | | 13 × I _e max. | | | | | 13 × I _e max. | | | | | 13 × I _e max. | | | | | | | | | |
| Mechanical endurance (Operating) | | | 100,000 | | | | | 100,000 | | | | | 100,000 | | | | | | | | | |
| Electrical endurance (Cycles) | | | 100,000 | | | | | 100,000 | | | | | 100,000 | | | | | | | | | |
| Max operating frequency per hour (Ope./h) | | | 25 | | | | | 25 | | | | | 25 | | | | | | | | | |
| Temperature compensation (Operation) | | | -20 ~ +60 °C | | | | | -20 ~ +60 °C | | | | | -20 ~ +60 °C | | | | | | | | | |
| Phase failure function | | | ○ | | | | | ○ | | | | | ○ | | | | | | | | | |
| Trip indicating function | | | × | | | | | × | | | | | × | | | | | | | | | |
| Test function | | | ○ | | | | | ○ | | | | | ○ | | | | | | | | | |
| Rated breaking capacity (kA) | Rated operational current (I _e) | Thermal release Adjustment range (A) | 240V | | 415V | | 460V | | 525V | | 690V | | 240V | | 415V | | 460V | | 525V | | 690V | |
| | | | 230V | 400V | 440V | 500V | 600V | 230V | 400V | 440V | 500V | 600V | 230V | 400V | 440V | 500V | 600V | | | | | |
| | | | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} |
| | 0.16 | 0.1~0.16 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 0.25 | 0.16~0.25 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 0.4 | 0.25~0.4 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 0.63 | 0.4~0.63 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 1 | 0.63~1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 1.6 | 1~1.6 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 3 | 3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 2.5 | 1.6~2.5 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 38 | 3 | 3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 |
| | 4 | 2.5~4 | 100 | 100 | 100 | 100 | 50 | 38 | 15 | 11 | 3 | 3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 |
| | 6 | 4~6 | 100 | 100 | 100 | 100 | 15 | 11 | 10 | 8 | 3 | 3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 6 | 6 |
| | 8 | 5~8 | 100 | 100 | 100 | 100 | 15 | 11 | 10 | 8 | 3 | 3 | 100 | 100 | 100 | 100 | 50 | 38 | 50 | 38 | 6 | 6 |
| | 10 | 6~10 | 100 | 100 | 50 | 38 | 15 | 11 | 6 | 5 | 3 | 3 | 100 | 100 | 100 | 100 | 50 | 38 | 50 | 38 | 6 | 6 |
| | 13 | 9~13 | 100 | 100 | 50 | 38 | 10 | 8 | 6 | 5 | 3 | 3 | 100 | 100 | 100 | 100 | 50 | 38 | 42 | 32 | 6 | 6 |
| | 17 | 11~17 | 50 | 38 | 20 | 15 | 10 | 8 | 6 | 5 | 3 | 3 | 100 | 100 | 50 | 38 | 20 | 15 | 10 | 8 | 4 | 4 |
| | 22 | 14~22 | 40 | 30 | 15 | 11 | 8 | 6 | 6 | 5 | 3 | 3 | 100 | 100 | 50 | 38 | 20 | 15 | 10 | 8 | 4 | 4 |
| | 26 | 18~26 | 40 | 30 | 15 | 11 | 8 | 6 | 6 | 5 | 3 | 3 | 100 | 100 | 50 | 38 | 20 | 15 | 10 | 8 | 4 | 4 |
| | 32 | 22~32 | 30 | 22 | 15 | 11 | 6 | 4 | 5 | 4 | 3 | 3 | 100 | 100 | 50 | 38 | 20 | 15 | 10 | 8 | 4 | 4 |
| | 40 | 28~40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 50 | 34~50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 63 | 45~63 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 75 | 55~75 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 90 | 70~90 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 100 | 80~100 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Ordering Example: Specify Rated Operational Current

GMS-32S-0.16 (0.1 to 0.16)

GMS-32S-0.25 (0.16 to 0.25)



| 63AF | | | | | | | | | | | | | | | | | | 100AF | | | | | | | | | |
|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|--|--|--|
| GMS-63S | | | | | | GMS-63H | | | | | | GMS-100S | | | | | | GMS-100H | | | | | | | | | |
| - | | | | | | GMS-63HI | | | | | | - | | | | | | GMS-100HI | | | | | | | | | |
| - | | | | | | GMS-63HL | | | | | | - | | | | | | GMS-100HL | | | | | | | | | |
| Standard | | | | | | High break | | | | | | Standard | | | | | | High break | | | | | | | | | |
| Rotary | | | | | | Rotary | | | | | | Rotary | | | | | | Rotary | | | | | | | | | |
| 3 | | | | | | 3 | | | | | | 3 | | | | | | 3 | | | | | | | | | |
| Up to 690V | | | | | | Up to 690V | | | | | | Up to 690V | | | | | | Up to 690V | | | | | | | | | |
| 50/60 Hz | | | | | | 50/60 Hz | | | | | | 50/60 Hz | | | | | | 50/60 Hz | | | | | | | | | |
| 1,000V | | | | | | 1,000V | | | | | | 1,000V | | | | | | 1,000V | | | | | | | | | |
| 8kV | | | | | | 8kV | | | | | | 8kV | | | | | | 8kV | | | | | | | | | |
| Cat. A | | | | | | Cat. A | | | | | | Cat. A | | | | | | Cat. A | | | | | | | | | |
| AC 3 | | | | | | AC 3 | | | | | | AC 3 | | | | | | AC 3 | | | | | | | | | |
| 25g | | | | | | 25g | | | | | | 25g | | | | | | 25g | | | | | | | | | |
| IP 20 | | | | | | IP 20 | | | | | | IP 20 | | | | | | IP 20 | | | | | | | | | |
| 13 × I _e max. | | | | | | 13 × I _e max. | | | | | | 13 × I _e max. | | | | | | 13 × I _e max. | | | | | | | | | |
| 50,000 | | | | | | 50,000 | | | | | | 50,000 | | | | | | 50,000 | | | | | | | | | |
| 25,000 | | | | | | 25,000 | | | | | | 25,000 | | | | | | 25,000 | | | | | | | | | |
| 25 | | | | | | 25 | | | | | | 25 | | | | | | 25 | | | | | | | | | |
| -20 ~ +60 °C | | | | | | -20 ~ +60 °C | | | | | | -20 ~ +60 °C | | | | | | -20 ~ +60 °C | | | | | | | | | |
| ○ | | | | | | ○ | | | | | | ○ | | | | | | ○ | | | | | | | | | |
| × | | | | | | × | | | | | | ○ | | | | | | ○ | | | | | | | | | |
| ○ | | | | | | ○ | | | | | | ○ | | | | | | ○ | | | | | | | | | |
| 240V | 415V | 460V | 525V | 690V | 240V | 415V | 460V | 525V | 690V | 240V | 415V | 460V | 525V | 690V | 240V | 415V | 460V | 525V | 690V | | | | | | | | |
| 230V | 400V | 440V | 500V | 600V | 230V | 400V | 440V | 500V | 600V | 230V | 400V | 440V | 500V | 600V | 230V | 400V | 440V | 500V | 600V | | | | | | | | |
| I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | I _{cu} | I _{cs} | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| 100 | 100 | 100 | 100 | 15 | 12 | 10 | 8 | 4 | 3 | 100 | 100 | 100 | 100 | 50 | 38 | 50 | 38 | 6 | 5 | - | - | - | - | | | | |
| 100 | 100 | 50 | 38 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 100 | 100 | 50 | 38 | 42 | 32 | 6 | 5 | - | - | - | - | | | | |
| 100 | 100 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 50 | 38 | 12 | 9 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 50 | 38 | 12 | 9 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 35 | 27 | 12 | 9 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 35 | 27 | 10 | 8 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 35 | 27 | 10 | 8 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 35 | 27 | 10 | 8 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| 50 | 38 | 25 | 19 | 10 | 8 | 6 | 5 | 4 | 3 | 100 | 100 | 50 | 50 | 35 | 27 | 10 | 8 | 5 | 5 | 100 | 100 | 50 | 38 | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100 | 100 | 50 | 38 | 40 | 30 | 8 | 6 | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100 | 100 | 50 | 38 | 40 | 30 | 8 | 6 | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100 | 100 | 75 | 50 | 50 | 38 | 12 | 9 | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 100 | 100 | 75 | 50 | 50 | 38 | 12 | 9 | | | | |

Specifications are subject to change without notice.

Product Selection Guide

Motor protection

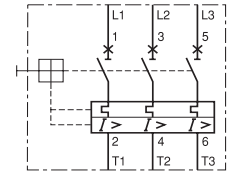
- Adjustable thermal release
- Magnetic release $13 \times I_e$ max.
- Trip class 10
- Ambient temperature compensation
- Phase-failure protection



GMS-32S



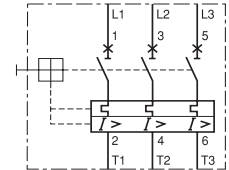
GMS-32H



(Circuit diagram)

| Type | Rated operational current I_e [A] | Thermal release Adjustment range [A] | Magnetic release Operating current [A] | Switching of 3 phase AC motors, AC-2, AC-3 | | | | | | 440/460V | | |
|-------------------------|-------------------------------------|--------------------------------------|--|--|------|-------|---------------------|-------|-------|---------------|---------------|-----|
| | | | | 3-phase [kW] (50/60Hz) | | | 3-phase [HP] (60Hz) | | | I_{cu} [kA] | I_{cs} [kA] | |
| | | | | 230V | 400V | 690V | 230V | 460V | 575V | | | |
| GMS-32S (Standard) | 0.16 | 0.1...0.16 | 2.1 | - | 0.02 | - | - | - | - | - | 100 | 100 |
| | 0.25 | 0.16...0.25 | 3.3 | 0.03 | 0.06 | - | - | - | - | - | 100 | 100 |
| | 0.4 | 0.25...0.4 | 5.2 | 0.06 | 0.09 | - | - | - | - | - | 100 | 100 |
| | 0.63 | 0.4...0.63 | 8.2 | 0.09 | 0.12 | 0.25 | - | - | - | - | 100 | 100 |
| | 1 | 0.63...1.0 | 13 | 0.12 | 0.25 | 0.55 | - | 1/2 | 1/2 | - | 100 | 100 |
| | 1.6 | 1.0...1.6 | 20.8 | 0.25 | 0.55 | 1.1 | 1/3 | 3/4 | 1 | - | 100 | 100 |
| | 2.5 | 1.6...2.5 | 32.5 | 0.37 | 0.75 | 1.5 | 1/2 | 1 1/2 | 1 1/2 | - | 100 | 100 |
| | 4 | 2.5...4.0 | 52 | 0.75 | 1.5 | 3 | 1 | 2 | 3 | - | 50 | 38 |
| | 6 | 4...6 | 78 | 1.5 | 2.2 | 4 | 1 1/2 | 5 | 5 | - | 15 | 11 |
| | 8 | 5...8 | 104 | 1.5 | 3 | 5.5 | 2 | 5 | 5 | - | 15 | 11 |
| | 10 | 6...10 | 130 | 3 | 4 | 7.5 | 3 | 7 1/2 | 10 | - | 15 | 11 |
| | 13 | 9...13 | 169 | 3 | 5.5 | 11 | 3 | 7 1/2 | 10 | - | 10 | 8 |
| | 17 | 11...17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | - | 10 | 8 |
| | 22 | 14...22 | 286 | 4 | 7.5 | 15 | 7 1/2 | 15 | 20 | - | 8 | 6 |
| 26 | 18...26 | 338 | 5.5 | 11 | 18.5 | 7 1/2 | 15 | 20 | - | 8 | 6 | |
| 32 | 22...32 | 416 | 7.5 | 15 | 22 | 10 | 20 | 30 | - | 6 | 4 | |
| GMS-32H (High break) | 0.16 | 0.1...0.16 | 2.1 | - | 0.02 | - | - | - | - | - | 100 | 100 |
| | 0.25 | 0.16...0.25 | 3.3 | 0.03 | 0.06 | - | - | - | - | - | 100 | 100 |
| | 0.4 | 0.25...0.4 | 5.2 | 0.06 | 0.09 | - | - | - | - | - | 100 | 100 |
| | 0.63 | 0.4...0.63 | 8.2 | 0.09 | 0.12 | 0.25 | - | - | - | - | 100 | 100 |
| | 1 | 0.63...1.0 | 13 | 0.12 | 0.25 | 0.55 | - | 1/2 | 1/2 | - | 100 | 100 |
| | 1.6 | 1.0...1.6 | 20.8 | 0.25 | 0.55 | 1.1 | 1/3 | 3/4 | 1 | - | 100 | 100 |
| | 2.5 | 1.6...2.5 | 32.5 | 0.37 | 0.75 | 1.5 | 1/2 | 1 1/2 | 1 1/2 | - | 100 | 100 |
| | 4 | 2.5...4.0 | 52 | 0.75 | 1.5 | 3 | 1 | 2 | 3 | - | 100 | 100 |
| | 6 | 4...6 | 78 | 1.5 | 2.2 | 4 | 1 1/2 | 5 | 5 | - | 100 | 100 |
| | 8 | 5...8 | 104 | 1.5 | 3 | 5.5 | 2 | 5 | 5 | - | 50 | 38 |
| | 10 | 6...10 | 130 | 3 | 4 | 7.5 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 13 | 9...13 | 169 | 3 | 5.5 | 11 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 17 | 11...17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | - | 20 | 15 |
| | 22 | 14...22 | 286 | 4 | 7.5 | 15 | 7 1/2 | 15 | 20 | - | 20 | 15 |
| 26 | 18...26 | 338 | 5.5 | 11 | 18.5 | 7 1/2 | 15 | 20 | - | 20 | 15 | |
| 32 | 22...32 | 416 | 7.5 | 15 | 22 | 10 | 20 | 30 | - | 20 | 15 | |

- Adjustable thermal release
- Magnetic release $13 \times I_e$ max.
- Trip class 10
- Ambient temperature compensation
- Phase-failure protection



(Circuit diagram)

| Type | Rated operational current I_e [A] | Thermal release Adjustment range [A] | Magnetic release Operating current [A] | Switching of 3 phase AC motors, AC-2, AC-3 | | | | | | 440/460V | |
|-----------------------|-------------------------------------|--------------------------------------|--|--|------|------|---------------------|------|------|---------------|---------------|
| | | | | 3-phase [kW] (50/60Hz) | | | 3-phase [HP] (60Hz) | | | I_{cu} [kA] | I_{cs} [kA] |
| | | | | 230V | 400V | 690V | 230V | 460V | 575V | | |
| GMS-63S (Standard) | 10 | 6~10 | 130 | 3 | 4 | 7.5 | 3 | 7½ | 10 | 15 | 12 |
| | 13 | 9~13 | 169 | 3 | 5.5 | 11 | 3 | 7½ | 10 | 10 | 8 |
| | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 10 | 8 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 10 | 8 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 10 | 8 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 10 | 8 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 10 | 8 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 10 | 8 |
| GMS-63H (High break) | 10 | 6~10 | 130 | 3 | 4 | 7.5 | 3 | 7½ | 10 | 50 | 38 |
| | 13 | 9~13 | 169 | 3 | 5.5 | 11 | 3 | 7½ | 10 | 50 | 38 |
| | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 50 | 38 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 50 | 38 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 35 | 27 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 35 | 27 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 35 | 27 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 35 | 27 |
| GMS-100S (Standard) | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 40 | 30 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 40 | 30 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 40 | 30 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 40 | 30 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 40 | 30 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 40 | 30 |
| | 63 | 45~63 | 819 | 15 | 30 | 55 | 20 | 50 | 60 | 40 | 30 |
| | 75 | 55~75 | 975 | 22 | 37 | 63 | 25 | 60 | 75 | 40 | 30 |
| GMS-100H (High break) | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 50 | 38 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 50 | 38 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 50 | 38 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 50 | 38 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 50 | 38 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 50 | 38 |
| | 63 | 45~63 | 819 | 15 | 30 | 55 | 20 | 50 | 60 | 50 | 38 |
| | 75 | 55~75 | 975 | 22 | 37 | 63 | 25 | 60 | 75 | 50 | 38 |

Product Selection Guide

Short-circuit protection for starters

- Without thermal releases
- Magnetic release $13 \times I_e$ max.



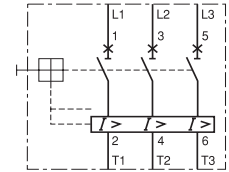
GMS-32HI



GMS-63HI



GMS-100HI



(Circuit diagram)

| Type | Rated operational current I_e [A] | Thermal release Adjustment range [A] | Magnetic release Operating current [A] | Switching of 3 phase AC motors, AC-2, AC-3 | | | | | | 440/460V | | |
|---------------------------|-------------------------------------|--------------------------------------|--|--|------|-------|---------------------|-------|-------|---------------|---------------|-----|
| | | | | 3-phase [kW] (50/60Hz) | | | 3-phase [HP] (60Hz) | | | I_{cu} [kA] | I_{cs} [kA] | |
| | | | | 230V | 400V | 690V | 230V | 460V | 575V | | | |
| GMS-32HI (High break) | 0.16 | - | 2.1 | - | 0.02 | - | - | - | - | - | 100 | 100 |
| | 0.25 | - | 3.3 | 0.03 | 0.06 | - | - | - | - | - | 100 | 100 |
| | 0.4 | - | 5.2 | 0.06 | 0.09 | - | - | - | - | - | 100 | 100 |
| | 0.63 | - | 8.2 | 0.09 | 0.12 | 0.25 | - | - | - | - | 100 | 100 |
| | 1 | - | 13 | 0.12 | 0.25 | 0.55 | - | 1/2 | 1/2 | - | 100 | 100 |
| | 1.6 | - | 20.8 | 0.25 | 0.55 | 1.1 | 1/3 | 3/4 | 1 | - | 100 | 100 |
| | 2.5 | - | 32.5 | 0.37 | 0.75 | 1.5 | 1/2 | 1 1/2 | 1 1/2 | - | 100 | 100 |
| | 4 | - | 52 | 0.75 | 1.5 | 3 | 1 | 2 | 3 | - | 100 | 100 |
| | 6 | - | 78 | 1.5 | 2.2 | 4 | 1 1/2 | 5 | 5 | - | 100 | 100 |
| | 8 | - | 104 | 1.5 | 3 | 5.5 | 2 | 5 | 5 | - | 50 | 38 |
| | 10 | - | 130 | 3 | 4 | 7.5 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 13 | - | 169 | 3 | 5.5 | 11 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 17 | - | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | - | 20 | 15 |
| | 22 | - | 286 | 4 | 7.5 | 15 | 7 1/2 | 15 | 20 | - | 20 | 15 |
| 26 | - | 338 | 5.5 | 11 | 18.5 | 7 1/2 | 15 | 20 | - | 20 | 15 | |
| 32 | - | 416 | 7.5 | 15 | 22 | 10 | 20 | 30 | - | 20 | 15 | |
| GMS-63HI (High break) | 10 | - | 130 | 3 | 4 | 7.5 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 13 | - | 169 | 3 | 5.5 | 11 | 3 | 7 1/2 | 10 | - | 50 | 38 |
| | 17 | - | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | - | 50 | 38 |
| | 22 | - | 286 | 4 | 7.5 | 15 | 7 1/2 | 15 | 20 | - | 50 | 38 |
| | 26 | - | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | - | 35 | 27 |
| | 32 | - | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | - | 35 | 27 |
| | 40 | - | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | - | 35 | 27 |
| 50 | - | 650 | 11 | 22 | 45 | 15 | 40 | 50 | - | 35 | 27 | |
| 63 | - | 819 | 15 | 30 | 55 | 20 | 50 | 60 | - | 35 | 27 | |
| GMS-100HI (High break) | 17 | - | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | - | 50 | 38 |
| | 22 | - | 286 | 4 | 7.5 | 15 | 7 1/2 | 15 | 20 | - | 50 | 38 |
| | 26 | - | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | - | 50 | 38 |
| | 32 | - | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | - | 50 | 38 |
| | 40 | - | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | - | 50 | 38 |
| | 50 | - | 650 | 11 | 22 | 45 | 15 | 40 | 50 | - | 50 | 38 |
| | 63 | - | 819 | 15 | 30 | 55 | 20 | 50 | 60 | - | 50 | 38 |
| | 75 | - | 975 | 22 | 37 | 63 | 25 | 60 | 75 | - | 50 | 38 |
| 90 | - | 1170 | 30 | 45 | 75 | 30 | 75 | 100 | - | 50 | 38 | |
| 100 | - | 1300 | 30 | 45 | 90 | 40 | 75 | 100 | - | 50 | 38 | |



Motor protection ... Class 20

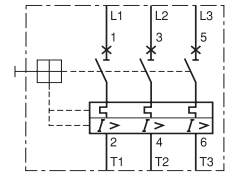
- Adjustable thermal release
- Magnetic release $13 \times I_e$ max.
- Trip class 20
- Ambient temperature compensation
- Phase-failure protection



GMS-63H



GMS-100H


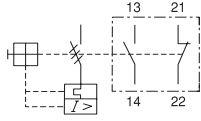
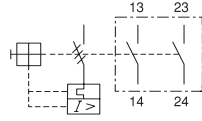
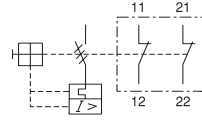

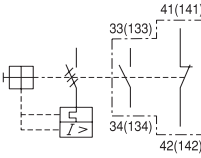
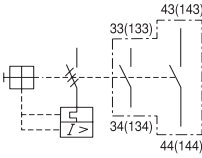
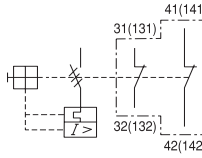
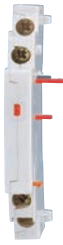



(Circuit diagram)

| Type | Rated operational current I_e [A] | Thermal release Adjustment range [A] | Magnetic release Operating current [A] | Switching of 3 phase AC motors, AC-2, AC-3 | | | | | | 440/460V | |
|---------------------------|-------------------------------------|--------------------------------------|--|--|------|------|---------------------|------|------|---------------|---------------|
| | | | | 3-phase [kW] (50/60Hz) | | | 3-phase [HP] (60Hz) | | | I_{cu} [kA] | I_{cs} [kA] |
| | | | | 230V | 400V | 690V | 230V | 460V | 575V | | |
| GMS-63HL (High break) | 10 | 6~10 | 130 | 3 | 4 | 7.5 | 3 | 7½ | 10 | 50 | 38 |
| | 13 | 9~13 | 169 | 3 | 5.5 | 11 | 3 | 7½ | 10 | 50 | 38 |
| | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 50 | 38 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 50 | 38 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 35 | 27 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 35 | 27 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 35 | 27 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 35 | 27 |
| GMS-100HL (High break) | 63 | 45~63 | 819 | 15 | 30 | 55 | 20 | 50 | 60 | 35 | 27 |
| | 17 | 11~17 | 221 | 4 | 7.5 | 11 | 5 | 10 | 15 | 50 | 38 |
| | 22 | 14~22 | 286 | 4 | 7.5 | 15 | 7½ | 15 | 20 | 50 | 38 |
| | 26 | 18~26 | 338 | 5.5 | 11 | 18.5 | 10 | 20 | 25 | 50 | 38 |
| | 32 | 22~32 | 416 | 7.5 | 15 | 22 | 10 | 25 | 30 | 50 | 38 |
| | 40 | 28~40 | 520 | 7.5 | 18.5 | 30 | 15 | 30 | 40 | 50 | 38 |
| | 50 | 34~50 | 650 | 11 | 22 | 45 | 15 | 40 | 50 | 50 | 38 |
| | 63 | 45~63 | 819 | 15 | 30 | 55 | 20 | 50 | 60 | 50 | 38 |
| 75 | 55~75 | 975 | 22 | 37 | 63 | 25 | 60 | 75 | 50 | 38 | |
| 90 | 70~90 | 1170 | 30 | 45 | 75 | 30 | 75 | 100 | 50 | 38 | |
| 100 | 80~100 | 1300 | 30 | 45 | 90 | 40 | 75 | 100 | 50 | 38 | |

Product Selection Guide

Accessories

| Type | Description | Connection diagram | | |
|--|---|--|--|---|
| GFX...  | Auxiliary Switch <ul style="list-style-type: none"> · Front mounting · 2-pole · One front mounting module per circuit breaker | 1NO1NC  GFX-11 | 2NO  GFX-20 | 2NC  GFX-02 |
| GSX...  | Auxiliary Switch <ul style="list-style-type: none"> · Side mounting on the left · 2-pole · One side mounting module per circuit breaker | 1NO1NC  GSX-11 | 2NO  GSX-20 | 2NC  GSX-02 |
| GSA...  | Any Trip Alarm Switch <ul style="list-style-type: none"> · Side mounting on the left · 2-pole · One side mounting module per circuit breaker. (Always directly fitted to the circuit breaker). | GMS-32: GMS-63/100: GSA32-11 GSA63100-11 | GSA32-20 GSA63100-20 | GSA32-02 GSA63100-02 |
| GMA...  | Magnetic Trip Alarm Switch <ul style="list-style-type: none"> · Side mounting on the left · 2-pole · One side mounting module per circuit breaker. (Always directly fitted to the circuit breaker except using with Any Trip Alarm Switch). | GMA-11 | GMA-20 | GMA-02 |

Ordering Example: Specify Contact Arrangement

GFX-11 (1NO 1NC)

GFX-20 (2NO)

GFX-02 (2NC)

| Type | Description | Connection diagram | |
|---|---|--|--|
| GSR...  | Shunt release <ul style="list-style-type: none"> Side mounting on the right One side mounting module per circuit breaker. (Always directly fitted to the circuit breaker). |  | 24V 50Hz / 28V 60Hz 110~127V 50Hz / 120V 60Hz 220~230V 50Hz / 240~260V 60Hz 240V 50Hz / 277V 60Hz 380~400V 50Hz / 440~460V 60Hz 415~440V 50Hz / 460~480V 60Hz |
| GUR...  | Undervoltage release <ul style="list-style-type: none"> Side mounting on the right One side mounting module per circuit breaker. (Always directly fitted to the circuit breaker). |  | 24V 50Hz / 28V 60Hz 110~127V 50Hz / 120V 60Hz 220~230V 50Hz / 240~260V 60Hz 240V 50Hz / 277V 60Hz 380~400V 50Hz / 440~460V 60Hz 415~440V 50Hz / 460~480V 60Hz |
| GURX...  | Undervoltage release with Switch (Rotary Handle Only) <ul style="list-style-type: none"> Side mounting on the right Include 2NO Auxiliary contact One side mounting module per circuit breaker. (Always directly fitted to the circuit breaker). |  | 24V 50Hz / 28V 60Hz 110~127V 50Hz / 120V 60Hz 220~230V 50Hz / 240~260V 60Hz 240V 50Hz / 277V 60Hz 380~400V 50Hz / 440~460V 60Hz 415~440V 50Hz / 460~480V 60Hz |

Others

| Type | Description | Applied Type |
|---|---|------------------------------------|
| PIL32  | Push-in lug <ul style="list-style-type: none"> For screwing the MMS on to mounting plates. | GMS-32S GMS-32H |
| IB100  | Insulation barriers <ul style="list-style-type: none"> Insulation barriers with increased creepage distances and clearances for UL. | GMS-100S GMS-100H |



● E-Handle (Rotary-type)

GMS E-Handle is a Rotary-type Handle accessory which can be attached to the front to control and verify the ON, TRIP, OFF condition of Manual Motor Starters under the situation of closing panel.

- Application Model : GMS-32H/HI, GMS-63S/H/HI, GMS-100S/H/HI
- Operation temp. : -20~ +60°C
- CE and UL certified
- Degree of protection : IP65
- Locking device : Lockable in on/off position
- Material of insulation : Plastic(PA66)

| Type | Application MMS | Remarks |
|--------|-----------------------|-----------------------------------|
| GEH32 | GMS-32H, 32HI | Length of shaft : 115 or 315mm |
| GEH63 | GMS-63S, 63H, 63HI | |
| GEH100 | GMS-100S, 100H, 100HI | |



● Enclosure

Case cover of GMS enclosure is specifically designed with dust-proof and corrosive-proof structure.

Therefore, it is the optimum product to use in dusty areas such as cement plants, cotton mills as well as in the presence of corrosive gas or liquid (excl. explosive, flammable gas) such as fertilizer, refinery, and plating plant.

- Application Model: GMS-32H/HI
- Operation temp. : -20~ +60°C
- CE and UL certified
- Degree of protection : IP65
- Material of insulation :Plastic(ABS)

| Type | Application MMS | Remarks |
|-----------|-----------------|---------------|
| GEP32A65S | GMS-32H, 32HI | Surface mount |

● Direct adaptor and Mounting unit

Direct adaptor , GDA

Direct adaptor is used to connect GMS directly with a contactor

Mounting unit , GMU

This device allows for mounting joined contactor and GMS onto a common back plate.



| Contactor | Mounting Unit | Manual Motor Starter | Adapter |
|--|---------------|----------------------|---------|
| CGMS-6A, CGMS-9A, CGMS-12A | GMU45 | GMS-32H | GDA16HA |
| | | GMS-32S | GDA16SA |
| CGMS-6D, CGMS-9D, CGMS-12D | | GMS-32H | GDA16HD |
| | | GMS-32S | GDA16SD |
| CC9SA, CC12SA, CC18SA, CC22SA | | GMS-32H | GDA22HA |
| | | GMS-32S | GDA22SA |
| CC9SD, CC12SD, CC18SD, CC22SD | | GMS-32H | GDA22HD |
| | | GMS-32S | GDA22SD |
| CC32SA, CC40SA | | GMS-32H | GDA32HA |
| | | GMS-32S | GDA32SA |
| CC32SD, CC40SD | | GMS-32H | GDA32HD |
| | | GMS-32S | GDA32SD |
| CC50LA, CC65LA CC50LD, CC65LS | GMU55 | GMS-63H, GMS-63S | GDA63A |
| | | GMS-63H, GMS-63S | GDA63D |
| CC75LA, CC85LA, CC100LA CC75LD, CC85LD, CC100LD | GMU70 | GMS-100H, GMS-100S | GDA95A |
| | | GMS-100H, GMS-100S | GDA95D |

Product Selection Guide

Busbar accessories



| | 45mm Spacing (rated 63A) | 54mm Spacing (rated 63A) | 63mm Spacing (rated 63A) | Jumper |
|--------------------|-----------------------------|--|---|---|
| Type | MSVGW45-14-2 | MSVGW54-14-2 | MSVGW63-14-2 | MSVGW45-SH |
| Description | For 2 GMS-32S/H | For 2 GMS-32S/H + accessories (side mnt aux. sw) | For 2 GMS-32S/H + accessories (side mnt undervoltage or shunt trip) | For connecting GMS-32S W/ GMS-32H |
| Type | MSVGW45-14-3 | MSVGW54-14-3 | MSVGW63-14-3 | |
| Description | For 3 GMS-32S/H | For 3 GMS-32S/H + accessories (side mnt aux. sw) | For 3 GMS-32S/H + accessories (side mnt undervoltage or shunt trip) | |
| Type | MSVGW45-14-4 | MSVGW54-14-4 | MSVGW63-14-4 | |
| Description | For 4 GMS-32S/H | For 4 GMS-32S/H + accessories (side mnt aux. sw) | For 4 GMS-32S/H + accessories (side mnt undervoltage or shunt trip) | |
| Type | MSVGW45-14-5 | MSVGW54-14-5 | MSVGW63-14-5 | |
| Description | For 5 GMS-32S/H | For 5 GMS-32S/H + accessories (side mnt aux. sw) | For 5 GMS-32S/H + accessories (side mnt undervoltage or shunt trip) | |



| | | | | |
|------------------------------------|--|--|--|---|
| 54mm Spacing (rated 120A) | 63mm Spacing (rated 120A) | Terminal cover | Supply connector | Connection module |
| MSVCPM25412 For 2 GMS-63 | MSVCP36312 For 2 GMS-63 + accessories (side mnt aux sw) | MSVB54 3 Pole protective cover for MSVGW.. | MSVGWE1-14 3 Phase input terminal 63A | GDA16SA For connecting GMS-32S to CGMS-6A - CGMS-12A |
| MSVCPM35412 For 3 GMS-63 | MSVCP36312 For 3 GMS-63 + accessories (side mnt aux. sw) | MSVTA120 3 Pole protective cover for MSVCP.. | MSVBTC50E 3 Phase Input terminal 120A | GDA16SD For connecting GMS-32S to CGMS-6D - CGMS-12D |
| MSVCPM45412 For 4 GMS-63 | MSVCP46312 For 4 GMS-63 + accessories (side mnt aux. sw) | | | GDA16HA For connecting GMS-32H to CGMS-6A - CGMS-12A |
| | | | | GDA16HD For connecting GMS-32H to CGMS-6D - CGMS-12D |

IEC performance data (Motor protection)



● GMS-100S

| Rated operational current I_e [A] | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|--|--|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V [kW] | | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V [kW] | | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V [kW] | | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V [kW] | | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses | | | | | | | | | | | |
| gG, gL., only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 440/460V [A] | | 100 | 125 | 125 | 125 | 125 | 125 | 160 | 160 | 160 | 160 |
| 500V [A] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 125 | 125 | 125 |
| 690V [A] | | 63 | 80 | 80 | 80 | 80 | 80 | 80 | 100 | 125 | 125 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 500V [kA] | | 25 | 25 | 25 | 15 | 15 | 12 | 12 | 8 | 8 | 8 |
| 690V [kA] | | 10 | 10 | 10 | 10 | 6 | 6 | 6 | 5 | 5 | 5 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 440/460V [kA] | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 500V [kA] | | 19 | 19 | 19 | 11 | 11 | 9 | 9 | 6 | 6 | 6 |
| 690V [kA] | | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 4 | 4 | 4 |



● GMS-100H

| Rated operational current I_e [A] | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|--|--|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V [kW] | | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V [kW] | | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V [kW] | | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V [kW] | | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses | | | | | | | | | | | |
| gG, gL., only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | * | * | * | * | * | * | * | * | * | * |
| 440/460V [A] | | 125 | 125 | 125 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| 500V [A] | | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 690V [A] | | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 125 | 160 | 160 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 75 | 75 |
| 440/460V [kA] | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 500V [kA] | | 35 | 35 | 35 | 25 | 20 | 15 | 15 | 12 | 12 | 12 |
| 690V [kA] | | 12 | 12 | 12 | 12 | 12 | 10 | 8 | 6 | 6 | 6 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 500V [kA] | | 27 | 27 | 27 | 19 | 15 | 11 | 11 | 9 | 9 | 9 |
| 690V [kA] | | 9 | 9 | 9 | 9 | 9 | 8 | 6 | 6 | 6 | 6 |

Note) * = Short circuit proof up to 50 or 100kA.
No back up fuse required.

IEC performance data (Short-circuit protection for starters)

● GMS-32HI

| Rated operational current I_e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 |
|---|------|------|------|------|------|-----------|-----------|------|-----------|---------|-----|-------|-----|-------|-----|------|------|
| AC-2, AC-3 | | | | | | | | | | | | | | | | | |
| 230/240V | [kW] | - | 0.03 | 0.06 | 0.09 | 0.12 | 0.18/0.25 | 0.37 | 0.55/0.75 | 1.1/1.5 | 1.5 | 2.2/3 | 3 | 3.7/4 | 4 | 5.5 | 7.5 |
| 400/415V | [kW] | 0.02 | 0.06 | 0.09 | 0.12 | 0.18/0.25 | 0.37/0.55 | 0.75 | 1.1/1.5 | 2.2 | 3 | 3.7/4 | 5.5 | 7.5 | 7.5 | 11 | 15 |
| 500V | [kW] | - | - | - | 0.25 | 0.37 | 0.55/0.75 | 1.1 | 1.5/2.2 | 3 | 3.7 | 4/5.5 | 7.5 | 11 | 11 | 15 | 18.5 |
| 690V | [kW] | - | - | - | 0.25 | 0.37/0.55 | 0.75/1.1 | 1.5 | 2.2/3 | 3.7/4 | 5.5 | 7.5 | 11 | 11 | 15 | 18.5 | 22 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | * | * | * | * | * | * | * | * | * | * | 100 | 125 | 125 | 125 |
| 440/460V | [A] | * | * | * | * | * | * | * | * | * | 80 | 80 | 80 | 80 | 100 | 100 | 100 |
| 500V | [A] | * | * | * | * | * | * | * | * | * | 63 | 80 | 80 | 80 | 80 | 80 | 80 |
| 690V | [A] | * | * | * | * | * | * | 35 | 40 | 50 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 20 | 20 | 20 | 20 |
| 500V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 42 | 10 | 10 | 10 | 10 |
| 690V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 38 | 38 |
| 440/460V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 38 | 15 | 15 | 15 | 15 |
| 500V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 32 | 8 | 8 | 8 | 8 |
| 690V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 |

● GMS-63HI

| Rated operational current I_e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 |
|---|------|-------|-----|-------|-----|------|------|------|-----|-----|
| AC-2, AC-3 | | | | | | | | | | |
| 230/240V | [kW] | 2.2/3 | 3 | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 |
| 400/415V | [kW] | 3.7/4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 |
| 500V | [kW] | 4/5.5 | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 |
| 690V | [kW] | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | 100 | 125 | 125 | 125 | 160 | 160 | 160 |
| 440/460V | [A] | 100 | 100 | 100 | 125 | 125 | 125 | 125 | 125 | 160 |
| 500V | [A] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 690V | [A] | 63 | 63 | 63 | 80 | 80 | 80 | 80 | 80 | 80 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 50 | 50 | 50 | 50 | 35 | 35 | 35 | 35 | 35 |
| 500V | [kA] | 50 | 42 | 12 | 12 | 12 | 10 | 10 | 10 | 10 |
| 690V | [kA] | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 38 | 38 | 38 | 38 | 27 | 27 | 27 | 27 | 27 |
| 500V | [kA] | 38 | 32 | 9 | 9 | 9 | 8 | 8 | 8 | 8 |
| 690V | [kA] | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

● GMS-100HI

| Rated operational current I_e | [A] | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|---|------|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V | [kW] | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V | [kW] | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V | [kW] | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V | [kW] | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | * | * | * | * | * | * | * | * |
| 440/460V | [A] | 125 | 125 | 125 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| 500V | [A] | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 690V | [A] | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 125 | 160 | 160 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 75 | 75 |
| 440/460V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 500V | [kA] | 35 | 35 | 35 | 25 | 20 | 15 | 15 | 12 | 12 | 12 |
| 690V | [kA] | 12 | 12 | 12 | 12 | 12 | 10 | 8 | 6 | 6 | 6 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 500V | [kA] | 27 | 27 | 27 | 19 | 15 | 11 | 11 | 9 | 9 | 9 |
| 690V | [kA] | 9 | 9 | 9 | 9 | 9 | 8 | 6 | 6 | 6 | 6 |

IEC performance data (Motor protection)



● GMS-100S

| Rated operational current I_e [A] | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|--|--|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V [kW] | | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V [kW] | | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V [kW] | | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V [kW] | | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses | | | | | | | | | | | |
| gG, gL., only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 440/460V [A] | | 100 | 125 | 125 | 125 | 125 | 125 | 160 | 160 | 160 | 160 |
| 500V [A] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 125 | 125 | 125 |
| 690V [A] | | 63 | 80 | 80 | 80 | 80 | 80 | 80 | 100 | 125 | 125 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| 500V [kA] | | 25 | 25 | 25 | 15 | 15 | 12 | 12 | 8 | 8 | 8 |
| 690V [kA] | | 10 | 10 | 10 | 10 | 6 | 6 | 6 | 5 | 5 | 5 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 440/460V [kA] | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 500V [kA] | | 19 | 19 | 19 | 11 | 11 | 9 | 9 | 6 | 6 | 6 |
| 690V [kA] | | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 4 | 4 | 4 |



● GMS-100H

| Rated operational current I_e [A] | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|--|--|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V [kW] | | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V [kW] | | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V [kW] | | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V [kW] | | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses | | | | | | | | | | | |
| gG, gL., only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | * | * | * | * | * | * | * | * | * | * |
| 440/460V [A] | | 125 | 125 | 125 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| 500V [A] | | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 690V [A] | | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 125 | 160 | 160 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 75 | 75 |
| 440/460V [kA] | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 500V [kA] | | 35 | 35 | 35 | 25 | 20 | 15 | 15 | 12 | 12 | 12 |
| 690V [kA] | | 12 | 12 | 12 | 12 | 12 | 10 | 8 | 6 | 6 | 6 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 500V [kA] | | 27 | 27 | 27 | 19 | 15 | 11 | 11 | 9 | 9 | 9 |
| 690V [kA] | | 9 | 9 | 9 | 9 | 9 | 8 | 6 | 6 | 6 | 6 |

Note) * = Short circuit proof up to 50 or 100kA.
No back up fuse required.

IEC performance data (Short-circuit protection for starters)

● GMS-32HI

| Rated operational current I_e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 |
|---|------|------|------|------|------|-----------|-----------|------|-----------|---------|-----|-------|-----|-------|-----|------|------|
| AC-2, AC-3 | | | | | | | | | | | | | | | | | |
| 230/240V | [kW] | - | 0.03 | 0.06 | 0.09 | 0.12 | 0.18/0.25 | 0.37 | 0.55/0.75 | 1.1/1.5 | 1.5 | 2.2/3 | 3 | 3.7/4 | 4 | 5.5 | 7.5 |
| 400/415V | [kW] | 0.02 | 0.06 | 0.09 | 0.12 | 0.18/0.25 | 0.37/0.55 | 0.75 | 1.1/1.5 | 2.2 | 3 | 3.7/4 | 5.5 | 7.5 | 7.5 | 11 | 15 |
| 500V | [kW] | - | - | - | 0.25 | 0.37 | 0.55/0.75 | 1.1 | 1.5/2.2 | 3 | 3.7 | 4/5.5 | 7.5 | 11 | 11 | 15 | 18.5 |
| 690V | [kW] | - | - | - | 0.25 | 0.37/0.55 | 0.75/1.1 | 1.5 | 2.2/3 | 3.7/4 | 5.5 | 7.5 | 11 | 11 | 15 | 18.5 | 22 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | * | * | * | * | * | * | * | * | * | * | 100 | 125 | 125 | 125 |
| 440/460V | [A] | * | * | * | * | * | * | * | * | * | 80 | 80 | 80 | 80 | 100 | 100 | 100 |
| 500V | [A] | * | * | * | * | * | * | * | * | * | 63 | 80 | 80 | 80 | 80 | 80 | 80 |
| 690V | [A] | * | * | * | * | * | * | 35 | 40 | 50 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 20 | 20 | 20 | 20 |
| 500V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 42 | 10 | 10 | 10 | 10 |
| 690V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 38 | 38 |
| 440/460V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 38 | 15 | 15 | 15 | 15 |
| 500V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 38 | 38 | 32 | 8 | 8 | 8 | 8 |
| 690V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 8 | 8 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 |

● GMS-63HI

| Rated operational current I_e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 |
|---|------|-------|-----|-------|-----|------|------|------|-----|-----|
| AC-2, AC-3 | | | | | | | | | | |
| 230/240V | [kW] | 2.2/3 | 3 | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 |
| 400/415V | [kW] | 3.7/4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 |
| 500V | [kW] | 4/5.5 | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 |
| 690V | [kW] | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | 100 | 125 | 125 | 125 | 160 | 160 | 160 |
| 440/460V | [A] | 100 | 100 | 100 | 125 | 125 | 125 | 125 | 125 | 160 |
| 500V | [A] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 690V | [A] | 63 | 63 | 63 | 80 | 80 | 80 | 80 | 80 | 80 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 50 | 50 | 50 | 50 | 35 | 35 | 35 | 35 | 35 |
| 500V | [kA] | 50 | 42 | 12 | 12 | 12 | 10 | 10 | 10 | 10 |
| 690V | [kA] | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 38 | 38 | 38 | 38 | 27 | 27 | 27 | 27 | 27 |
| 500V | [kA] | 38 | 32 | 9 | 9 | 9 | 8 | 8 | 8 | 8 |
| 690V | [kA] | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

● GMS-100HI

| Rated operational current I_e | [A] | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|---|------|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V | [kW] | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V | [kW] | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V | [kW] | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V | [kW] | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses gG, gL, only if $I_{cc} > I_{cu}$ (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V | [A] | * | * | * | * | * | * | * | * | * | * |
| 400/415V | [A] | * | * | * | * | * | * | * | * | * | * |
| 440/460V | [A] | 125 | 125 | 125 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| 500V | [A] | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 690V | [A] | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 125 | 160 | 160 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 75 | 75 |
| 440/460V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 500V | [kA] | 35 | 35 | 35 | 25 | 20 | 15 | 15 | 12 | 12 | 12 |
| 690V | [kA] | 12 | 12 | 12 | 12 | 12 | 10 | 8 | 6 | 6 | 6 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V | [kA] | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V | [kA] | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 500V | [kA] | 27 | 27 | 27 | 19 | 15 | 11 | 11 | 9 | 9 | 9 |
| 690V | [kA] | 9 | 9 | 9 | 9 | 9 | 8 | 6 | 6 | 6 | 6 |

IEC performance data (Motor protection ; Class 20)



● GMS-63HL

| Rated operational current I_e [A] | | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 |
|--|--|-------|-----|-------|-----|------|------|------|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | |
| 230/240V [kW] | | 2.2/3 | 3 | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 |
| 400/415V [kW] | | 3.7/4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 |
| 500V [kW] | | 4/5.5 | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 |
| 690V [kW] | | 7.5 | 11 | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 |
| Back-up fuses | | | | | | | | | | |
| gG, gL ₊ , only if $I_{cc} > I_{cu}$ | | | | | | | | | | |
| (* = No back up fuse required) | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | * | * | 100 | 125 | 125 | 125 | 160 | 160 | 160 |
| 440/460V [A] | | 100 | 100 | 100 | 125 | 125 | 125 | 125 | 125 | 160 |
| 500V [A] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 690V [A] | | 63 | 63 | 63 | 80 | 80 | 80 | 80 | 80 | 80 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 50 | 50 | 50 | 50 | 35 | 35 | 35 | 35 | 35 |
| 500V [kA] | | 50 | 42 | 12 | 12 | 10 | 10 | 10 | 10 | 10 |
| 690V [kA] | | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 38 | 38 | 38 | 38 | 27 | 27 | 27 | 27 | 27 |
| 500V [kA] | | 38 | 32 | 9 | 9 | 8 | 8 | 8 | 8 | 8 |
| 690V [kA] | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |



● GMS-100HL

| Rated operational current I_e [A] | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|--|--|-------|-----|------|------|------|-----|-----|-----|-----|-----|
| Switching of standard three-phase motors | | | | | | | | | | | |
| AC-2, AC-3 | | | | | | | | | | | |
| 230/240V [kW] | | 3.7/4 | 4 | 5.5 | 7.5 | 7.5 | 11 | 15 | 22 | 30 | 30 |
| 400/415V [kW] | | 7.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 45 |
| 500V [kW] | | 11 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 63 |
| 690V [kW] | | 11 | 15 | 18.5 | 22 | 30 | 45 | 55 | 63 | 75 | 90 |
| Back-up fuses | | | | | | | | | | | |
| gG, gL ₊ , only if $I_{cc} > I_{cu}$ | | | | | | | | | | | |
| (* = No back up fuse required) | | | | | | | | | | | |
| 230/240V [A] | | * | * | * | * | * | * | * | * | * | * |
| 400/415V [A] | | * | * | * | * | * | * | * | * | * | * |
| 440/460V [A] | | 125 | 125 | 125 | 160 | 160 | 160 | 200 | 200 | 200 | 200 |
| 500V [A] | | 100 | 125 | 125 | 125 | 160 | 160 | 160 | 160 | 160 | 160 |
| 690V [A] | | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 125 | 160 | 160 |
| Ultimate short-circuit breaking capacity I_{cu} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 75 | 75 |
| 440/460V [kA] | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 500V [kA] | | 35 | 35 | 35 | 25 | 20 | 15 | 15 | 12 | 12 | 12 |
| 690V [kA] | | 12 | 12 | 12 | 12 | 12 | 10 | 8 | 6 | 6 | 6 |
| Rated service short-circuit breaking capacity I_{cs} | | | | | | | | | | | |
| 230/240V [kA] | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 400/415V [kA] | | 100 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| 440/460V [kA] | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 |
| 500V [kA] | | 27 | 27 | 27 | 19 | 15 | 11 | 11 | 9 | 9 | 9 |
| 690V [kA] | | 9 | 9 | 9 | 9 | 9 | 8 | 6 | 6 | 6 | 6 |

Note) * = Short circuit proof up to 50 or 100kA.
No back up fuse required.



UL/CSA performance data (Motor protection)

Manual motor controller

(UL 508, CSA C22.2 as Manual motor controllers)

● **GMS-32S**

| Rated operational current I _e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 | |
|---|------|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 40 | 30 | 30 | 20 | |
| 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 25 | 25 | 10 | 10 | 10 | 10 | 7.5 | 7.5 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Motor load | | | | | | | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | - | - | - | - | - | - | 1/8 | 1/4 | 1/3 | 1/2 | 1/2 | 1 | 2 | 2 | 2 | |
| | 230V | [HP] | - | - | - | - | - | 1/10 | 1/6 | 1/3 | 3/4 | 1 | 1½ | 2 | 3 | 3 | 5 | 5 |
| 3 Phase | 230V | [HP] | - | - | - | - | - | 1/3 | 1/2 | 1 | 1½ | 2 | 3 | 3 | 5 | 7½ | 7½ | 10 |
| | 460V | [HP] | - | - | - | - | 1/2 | 3/4 | 1½ | 2 | 5 | 5 | 7½ | 7½ | 10 | 15 | 15 | 20 |
| | 575V | [HP] | - | - | - | - | 1/2 | 1 | 1½ | 3 | 5 | 5 | 10 | 10 | 15 | 20 | 20 | 30 |
| Maximum rated current of fuse or breaker | | [A] | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | |

Manual motor controller "group installation" or "Type E starter"

(UL 508, CSA C22.2 No..14, for group installation, in connection with a short-circuit protection device)

● **GMS-32H**

| Rated operational current I _e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 | |
|---|------|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 30 | 30 | 30 | 30 | |
| 600Y/347V | [kA] | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | - | - | - | - | - | - | 1/8 | 1/4 | 1/3 | 1/2 | 1/2 | 1 | 2 | 2 | 2 | |
| | 230V | [HP] | - | - | - | - | - | 1/10 | 1/6 | 1/3 | 3/4 | 1 | 1½ | 2 | 3 | 3 | 5 | 5 |
| 3 Phase | 230V | [HP] | - | - | - | - | - | 1/3 | 1/2 | 1 | 1½ | 2 | 3 | 3 | 5 | 7½ | 7½ | 10 |
| | 460V | [HP] | - | - | - | - | 1/2 | 3/4 | 1½ | 2 | 5 | 5 | 7½ | 7½ | 10 | 15 | 15 | 20 |
| | 575V | [HP] | - | - | - | - | 1/2 | 1 | 1½ | 3 | 5 | 5 | 10 | 10 | 15 | 20 | 20 | 30 |
| Maximum rated current of fuse or breaker | | [A] | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | |



Technical Information

UL/CSA performance data (Motor protection)

Manual motor controller "group installation" or "Type E starter"
(UL 508, CSA C22.2 No.14, for group installation, in connection with a short-circuit protection device)



● GMS-63S

| Rated operational current I _e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 | |
|---|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 50 | 50 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1/2 | 1/2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 |
| | 230V | [HP] | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 15 |
| 3 Phase | 230V | [HP] | 3 | 3 | 5 | 7½ | 10 | 10 | 15 | 15 | 20 |
| | 460V | [HP] | 7½ | 7½ | 10 | 15 | 20 | 25 | 30 | 40 | 50 |
| | 575V | [HP] | 10 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 |
| Maximum rated current of fuse or breaker | | [A] | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |



● GMS-63H

| Rated operational current I _e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 | |
|---|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 65 | 65 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | |
| 600Y/347V | [kA] | 25 | 25 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1/2 | 1/2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 |
| | 230V | [HP] | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 15 |
| 3 Phase | 230V | [HP] | 3 | 3 | 5 | 7½ | 10 | 10 | 15 | 15 | 20 |
| | 460V | [HP] | 7½ | 7½ | 10 | 15 | 20 | 25 | 30 | 40 | 50 |
| | 575V | [HP] | 10 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 |
| Maximum rated current of fuse or breaker | | [A] | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |

Manual motor controller "group installation" or "Type E starter"
(UL 508, CSA C22.2 No..14, for group installation, in connection with a short-circuit protection device)

● GMS-100S



| Rated operational current I _e [A] | | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|---|-----------|------|-----|------|------|------|------|------|------|------|------|------|
| Max. short-circuit current | | | | | | | | | | | | |
| | 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 40 | 40 | 40 | 40 |
| | 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Motor load | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1 | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 10 |
| | 230V | [HP] | 3 | 3 | 5 | 5 | 7½ | 10 | 15 | 15 | 20 | 20 |
| 3 Phase | 230V | [HP] | 5 | 7½ | 10 | 10 | 15 | 15 | 20 | 25 | 30 | 40 |
| | 460V | [HP] | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 75 |
| | 575V | [HP] | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 100 |
| | | | | | | | | | | | | |
| Maximum rated current of fuse or breaker | | | [A] | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

● GMS-100H



| Rated operational current I _e [A] | | | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 |
|---|-----------|------|-----|------|------|------|------|------|------|------|------|------|
| Max. short-circuit current | | | | | | | | | | | | |
| | 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 480Y/277V | [kA] | 65 | 65 | 65 | 65 | 65 | 65 | 50 | 50 | 50 | 50 |
| | 600Y/347V | [kA] | 25 | 20 | 20 | 20 | 20 | 20 | 10 | 10 | 10 | 10 |
| Motor load | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1 | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 10 |
| | 230V | [HP] | 3 | 3 | 5 | 5 | 7½ | 10 | 15 | 15 | 20 | 20 |
| 3 Phase | 230V | [HP] | 5 | 7½ | 10 | 10 | 15 | 15 | 20 | 25 | 30 | 40 |
| | 460V | [HP] | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 75 |
| | 575V | [HP] | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 100 |
| | | | | | | | | | | | | |
| Maximum rated current of fuse or breaker | | | [A] | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

Technical Information

Manual Motor Controller (UL508)

● GMS-32S

| Rated operational current I _e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 | |
|--|------|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|----|----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 50 | 50 | 40 | 30 | 30 | 20 | |
| 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 25 | 25 | 10 | 10 | 10 | 10 | 7.5 | 7.5 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Motor load | | | | | | | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | - | - | - | - | - | - | 1/8 | 1/4 | 1/3 | 1/2 | 1/2 | 1 | 2 | 2 | 2 | |
| | 230V | [HP] | - | - | - | - | - | 1/10 | 1/6 | 1/3 | 3/4 | 1 | 1½ | 2 | 3 | 3 | 5 | |
| 3 Phase | 230V | [HP] | - | - | - | - | - | 1/3 | 1/2 | 1 | 1½ | 2 | 3 | 3 | 5 | 7½ | 7½ | 10 |
| | 460V | [HP] | - | - | - | - | 1/2 | 3/4 | 1½ | 2 | 5 | 5 | 7½ | 7½ | 10 | 15 | 15 | 20 |
| | 575V | [HP] | - | - | - | - | 1/2 | 1 | 1½ | 3 | 5 | 5 | 10 | 10 | 15 | 20 | 20 | 30 |
| Max. fuse size | [A] | 1 | 1 | 1 | 1 | 3 | 6 | 10 | 15 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 125 | |
| Max. breaker size | [A] | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 125 | |

● GMS-32H

| Rated operational current I _e | [A] | 0.16 | 0.25 | 0.4 | 0.63 | 1 | 1.6 | 2.5 | 4 | 6 | 8 | 10 | 13 | 17 | 22 | 26 | 32 | |
|--|------|------|------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 30 | 30 | 30 | 30 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | - | - | - | - | - | - | 1/8 | 1/4 | 1/3 | 1/2 | 1/2 | 1 | 2 | 2 | 2 | |
| | 230V | [HP] | - | - | - | - | - | 1/10 | 1/6 | 1/3 | 3/4 | 1 | 1½ | 2 | 3 | 3 | 5 | |
| 3 Phase | 230V | [HP] | - | - | - | - | - | 1/3 | 1/2 | 1 | 1½ | 2 | 3 | 3 | 5 | 7½ | 7½ | 10 |
| | 460V | [HP] | - | - | - | - | 1/2 | 3/4 | 1½ | 2 | 5 | 5 | 7½ | 7½ | 10 | 15 | 15 | 20 |
| | 575V | [HP] | - | - | - | - | 1/2 | 1 | 1½ | 3 | 5 | 5 | 10 | 10 | 15 | 20 | 20 | 30 |
| Max. fuse size | [A] | 1 | 1 | 1 | 1 | 3 | 6 | 10 | 15 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 125 | |
| Max. breaker size | [A] | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 125 | |

● GMS-63S

| Rated operational current I _e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 | |
|--|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1/2 | 1/2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 |
| | 230V | [HP] | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 15 |
| 3 Phase | 230V | [HP] | 3 | 3 | 5 | 7½ | 10 | 10 | 15 | 15 | 20 |
| | 460V | [HP] | 7½ | 7½ | 10 | 15 | 20 | 25 | 30 | 40 | 50 |
| | 575V | [HP] | 10 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 |
| Max. fuse size | [A] | 40 | 50 | 60 | 80 | 100 | 125 | 150 | 200 | 250 | |
| Max. breaker size | [A] | 40 | 50 | 60 | 80 | 100 | 125 | 150 | 200 | 250 | |



● GMS-63H

| Rated operational current I _e | [A] | 10 | 13 | 17 | 22 | 26 | 32 | 40 | 50 | 63 | |
|--|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Max. short-circuit current | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1/2 | 1/2 | 1 | 2 | 2 | 3 | 3 | 5 | 5 |
| | 230V | [HP] | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 15 |
| 3 Phase | 230V | [HP] | 3 | 3 | 5 | 7½ | 10 | 10 | 15 | 15 | 20 |
| | 460V | [HP] | 7½ | 7½ | 10 | 15 | 20 | 25 | 30 | 40 | 50 |
| | 575V | [HP] | 10 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 |
| Max. fuse size | [A] | 40 | 50 | 60 | 80 | 100 | 125 | 150 | 200 | 250 | |
| Max. breaker size | [A] | 40 | 50 | 60 | 80 | 100 | 125 | 150 | 200 | 250 | |



● GMS-100S

| Rated operational current I _e | [A] | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 | |
|--|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Max. short-circuit current | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1 | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 10 |
| | 230V | [HP] | 3 | 3 | 5 | 5 | 7½ | 10 | 15 | 15 | 20 | 20 |
| 3 Phase | 230V | [HP] | 5 | 7½ | 10 | 10 | 15 | 15 | 20 | 25 | 30 | 40 |
| | 460V | [HP] | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 75 |
| | 575V | [HP] | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 100 |
| Max. fuse size | [A] | 60 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | |
| Max. breaker size | [A] | 60 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | |



● GMS-100H

| Rated operational current I _e | [A] | 17 | 22 | 26 | 32 | 40 | 50 | 63 | 75 | 90 | 100 | |
|--|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Max. short-circuit current | | | | | | | | | | | | |
| 240V | [kA] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |
| 480Y/277V | [kA] | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | |
| 600Y/347V | [kA] | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| Motor load | | | | | | | | | | | | |
| 1 Phase | 115V | [HP] | 1 | 1½ | 2 | 3 | 3 | 5 | 5 | 7½ | 10 | 10 |
| | 230V | [HP] | 3 | 3 | 5 | 5 | 7½ | 10 | 15 | 15 | 20 | 20 |
| 3 Phase | 230V | [HP] | 5 | 7½ | 10 | 10 | 15 | 15 | 20 | 25 | 30 | 40 |
| | 460V | [HP] | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 75 |
| | 575V | [HP] | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 75 | 100 | 100 |
| Max. fuse size | [A] | 60 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | |
| Max. breaker size | [A] | 60 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | |

Technical Information

General data



| Type | | GMS-32S |
|---|------------|------------------------------------|
| Rated insulation voltage | | |
| | IEC | 690V |
| | UL, CSA | 600V |
| Rated impulse withstand voltage | | |
| Uimp/Pollution degree | | 6kV / 3 |
| Rated frequency | | 50 / 60 Hz |
| Utilization category: | | |
| IEC 947-2 (Circuit breaker) | | Cat. A |
| IEC 947-4-1 (Motor starter) | | AC 3 |
| Life span | | |
| Mechanical | Operations | 100,000 |
| Electrical(I _e max.) | Operations | 100,000 |
| Switching frequency | | Ope./h |
| | | 25 |
| Ambient temperature | | |
| | Storage | °C |
| | | -50 ~ +80 |
| | Operation | °C |
| | | -20 ~ +60 |
| Operation altitude | | m |
| | | Up to 2000 (6500 Feet) |
| Protection class | | IP 20 |
| | | Safe from finger touch |
| Resistance to shock | | g |
| | | 25 |
| Resistance to vibration | | Hz |
| | | 5 ~ 150 |
| Rated thermal current I_{th} | | |
| IEC | [A] | 0.1 ... 32 |
| up to 60°C ambient temperature | | |
| Overload protection | | |
| Characteristics | | ○ |
| Ambient temperature compensation, thermal current I_{th} adjustments | | |
| -20°C ~ -5°C | | set one point lower ³⁾ |
| -5°C ~ +40°C | | automatic |
| +40°C ~ +60°C | | set one point higher ³⁾ |
| Phase-failure protection | | ○ |
| Trip class | | IEC 60947-4-1 |
| | | 10 |
| Magnetic release | | |
| Response current | | 13 × I _n ²⁾ |
| Total power loss P_v | | |
| Circuit breaker at rated load | [W] | I _n = 0.16~4A : 9.8 |
| Operating temperature | | I _n = 6~26A : 8 |
| | | I _n = 32A : 3.9 |

Note = 1) Class20; GMS-63HL, GMS-100HL





2) I_n = Max. rated operational current I_e

3) use Thermal Current dial to adjust accordingly




| | GMS-32H | GMS-63S, 63H | GMS-100S, 100H |
|--|--|--|--|
| | 690V | 1000V | 1000V |
| | 600V | 600V | 600V |
| | 6kV / 3 | 8kV / 3 | 8kV / 3 |
| | 50 / 60 Hz | 50 / 60 Hz | 50 / 60 Hz |
| | Cat. A | Cat. A | Cat. A |
| | AC 3 | AC 3 | AC 3 |
| | 100,000 | 50,000 | 50,000 |
| | 100,000 | 25,000 | 25,000 |
| | 25 | 25 | 25 |
| | -50 ~ +80 | -50 ~ +80 | -50 ~ +80 |
| | -20 ~ +60 | -20 ~ +60 | -20 ~ +60 |
| | Up to 2000 (6500 Feet) | Up to 2000 (6500 Feet) | Up to 2000 (6500 Feet) |
| | IP 20 | IP 20 | IP 20 |
| | Safe from finger touch | Safe from finger touch | Safe from finger touch |
| | 25 | 25 | 25 |
| | 5 ~ 150 | 5 ~ 150 | 5 ~ 150 |
| | 0.1 ... 32 | 6 ... 63 | 11 ... 100 |
| | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | set one point lower ³⁾ automatic set one point higher ³⁾ | set one point lower ³⁾ automatic set one point higher ³⁾ | set one point lower ³⁾ automatic set one point higher ³⁾ |
| | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | 10 | 10 ¹⁾ | 10 ¹⁾ |
| | 13 × In ²⁾ | 13 × In ²⁾ | 13 × In ²⁾ |
| | In = 0.16~4A : 9.8 In = 6~26A : 8 In = 32A : 3.9 | In = 10~22A : 13.3 In = 26~63A : 12.6 | In = 17~63A : 11.9 In = 75~100A : 15 |


● Manual Motor Starter GMS-32...100

| | GMS-32S | GMS-32H | GMS-32S, 63H | GMS-100S, 100H |
|--------------------------------------|---|---|---|---|
| Conformity to standards | IEC60947 UL508, UL508 Type E | | | |
| Approvals | CE, UL | | | |
| Terminal parts |  |  |  |  |
| Screwdriver | | | | |
| Single-core 1.conductor [mm] / [AWG] | 1...10 / 18...8 | 1...10 / 18...8 | 0.75...35 / 18...2 | 2.5...70 / 12...2/0 |
| 2.conductor [mm] / [AWG] | 1...6 / 18...10 | 1...6 / 18...10 | 0.75...25 / 18...4 | 2.5...50 / 12...1/0 |
| Stranded 1.conductor [mm] / [AWG] | 1...6 / 18...10 | 1...6 / 18...10 | 0.75...35 / 18...2 | 2.5...70 / 12...2/0 |
| 2.conductor [mm] / [AWG] | 1...6 / 18...10 | 1...6 / 18...10 | 0.75...25 / 18...4 | 2.5...50 / 12...1/0 |
| Flexible 1.conductor [mm] / [AWG] | 1...6 / 18...10 | 1...6 / 18...10 | 0.75...25 / 18...4 | 2.5...50 / 12...1/0 |
| 2.conductor [mm] / [AWG] | 0.75...4 / 18...10 | 0.75...4 / 18...10 | 0.75...16 / 18...6 | 2.5...35 / 10...2 |
| Tightening torque [Nm] / [lb-in] | 0.8...2.5 / 7...22 | 0.8...2.5 / 7...22 | 3...4.5 / 26...39 | 4...6 / 35...53 |

● Accessories for Manual Motor Starter GMS-32...100

| | Auxiliary contacts for front mounting GFX... | Auxiliary contacts for left side mounting GSX... | Alarm switch for left side mounting GSA... |
|--|--|---|---|
| Rated thermal current / th | | | |
| at 40 °C ambient temperature [A] | 5 | 1 0 | 1 0 |
| at 60 °C ambient temperature [A] | 3 | 6 | 6 |
| Contact class coordination according to NEMA (UL/CSA-Standards) | | | |
| AC | B 600 Standard Pilot Duty | A 600 Standard Pilot Duty | A 600 Standard Pilot Duty |
| DC | R 300 Light Pilot Duty | Q 300 Light Pilot Duty | Q 300 Light Pilot Duty |
| Back-up fuses gG, gL [A] | 16 | 1 6 | 1 6 |
| Rated supply current [V] | 24 240 | 24 240 | 24 240 |
| AC-15: [A] | 3 2 | 6 4 | 6 4 |
| DC-13: [V] | 24 220 | 24 220 | 24 220 |
| [A] | 1 0.1 | 2 0.25 | 2 0.25 |
| Terminal parts |  | | |
| Type of terminals | Poizidriv size 2 | | |
| Screwdriver | 0.5...2.5 / 20...14 | | |
| Single-core 1.conductor [mm] / [AWG] | 0.5...2.5 / 20...14 | | |
| 2.conductor [mm] / [AWG] | 0.5...4 / 20...10 | | |
| Flexible 1.conductor [mm] / [AWG] | 0.75...2.5 / 18...14 | | |
| 2.conductor [mm] / [AWG] | | | |
| Tightening torque [Nm] / [lb-in] | 0.8...1.2 / 7...10 | | |

● Accessories for Manual Motor Starter GMS-32...100

| | Undervoltage release for right side mounting GUR... | Undervoltage release with 2 auxiliary contacts for right side mounting GURX... | Shunt release for right side mounting GSR... |
|---|--|---|---|
| Actuating voltage | | | |
| Pull-in | 0.85...1.1 × Us | 0.85...1.1 × Us | 0.7...1.1 × Us |
| Drop-out | 0.7...0.35 × Us | 0.7...0.35 × Us | |
| Rated control voltage | | | |
| min.: | 24V 50Hz / 28V 60Hz | 24V 50Hz / 28V 60Hz | 24V 50Hz / 28V 60Hz |
| max.: | 415~440V 50Hz / 460~480V 60Hz | 415~440V 50Hz / 460~480V 60Hz | 415~440V 50Hz / 460~480V 60Hz |
| Coil rating | | | |
| Pull-in | 8.5VA, 6W | 8.5VA, 6W | 8.5VA, 6W |
| Hold | 3VA, 1.2W | 3VA, 1.2W | 3VA, 1.2W |
| On-Time | 100% | 100% | 100% |
| Terminal parts | | | |
| Type of terminals | |  | |
| Screwdriver | | Pozidriv size 2 | |
| 1.conductor [mm] / [AWG] | | 0.5...2.5 / 20...14 | |
| 2.conductor [mm] / [AWG] | | 0.5...2.5 / 20...14 | |
| 1.conductor [mm] / [AWG] | | 0.5...4 / 20...10 | |
| 2.conductor [mm] / [AWG] | | 0.75...2.5 / 18...14 | |
| Tightening torque [Nm] / [lb-in] | | 0.8...1.2 / 7...10 | |

● Weights

| Description | Type | Weight [g] |
|-----------------------------|---|------------|
| Circuit breaker | GMS-32S | 320 |
| | GMS-32H | 360 |
| | GMS-63S | 1,000 |
| | GMS-100S | 2,200 |
| Auxiliary switch | GFX... (Front Auxiliary Switch) | 18 |
| | GSX... (Side Auxiliary Switch) | 30 |
| | GSA... (Alarm Switch) | 40 |
| Undervoltage release | GUR... (Undervoltage release) | 110 |
| | GURX... (Undervoltage release with 2 auxiliary contacts) | 120 |
| Shunt release | GSR... (Shunt release) | 110 |

Type '2' coordination according to IEC 947-4-1

- Short-circuit current $I_q = 50\text{kA}$
Voltage : 400/415V, 50/60Hz

| Standard motors AC-3 at 400/415V 1500rpm | | Manual motor starter | | | Contactor | |
|---|------|-------------------------|---|---|----------------|-----|
| [kW] | [A] | Circuit breaker Type | Thermal overload release setting range [A] | Magnetic release response current [A] | Type | [A] |
| 0.06 | 0.24 | GMS-32S 0.25A | 0.16 ~0.25 | 3.25 | CGMS-6 | 6 |
| 0.09 | 0.33 | GMS-32S 0.4A | 0.25~0.4 | 5.2 | CGMS-6 | 6 |
| 0.12 | 0.43 | GMS-32S 0.63A | 0.4~0.63 | 8.19 | CGMS-6 | 6 |
| 0.18 | 0.61 | GMS-32S 0.63A | 0.4~0.63 | 8.19 | CGMS-6 | 6 |
| 0.25 | 0.8 | GMS-32S 1A | 0.63~1 | 13 | CGMS-6 | 6 |
| 0.37 | 1.1 | GMS-32S 1.6A | 1~1.6 | 20.8 | CGMS-6 | 6 |
| 0.55 | 1.5 | GMS-32S 1.6A | 1~1.6 | 20.8 | CGMS-6 | 6 |
| 0.75 | 1.9 | GMS-32S 2.5A | 1.6~2.5 | 32.5 | CGMS-9/CGC-9 | 9 |
| 1.1 | 2.7 | GMS-32S 4A | 2.5~4 | 52 | CGMS-9/CGC-9 | 9 |
| 1.5 | 3.5 | GMS-32S 4A | 2.5~4 | 52 | CGMS-12/CGC-12 | 12 |
| 2.2 | 5.0 | GMS-32S 6A | 4~6 | 78 | CGC-18 | 18 |
| 3.0 | 6.6 | GMS-32S 8A | 5~8 | 104 | CGC-18 | 18 |
| 4.0 | 8.5 | GMS-32S 10A | 6~10 | 130 | CGC-18 | 18 |
| 5.5 | 11.0 | GMS-32S 13A | 9~13 | 169 | CGC-22 | 22 |
| 7.5 | 15.0 | GMS-32H 17A | 11~17 | 221 | CGC-22 | 22 |
| 10.0 | 20.0 | GMS-32H 22A | 14~22 | 286 | CGC-32 | 32 |
| 11.0 | 22.0 | GMS-32H 26A | 18~26 | 338 | CGC-32 | 32 |
| 15.0 | 29.0 | GMS-32H 32A | 22~32 | 416 | CGC-32 | 32 |
| 18.5 | 36.0 | GMS-63S 40A | 28~40 | 520 | CGC-50 | 50 |
| 22.0 | 41.0 | GMS-63S 50A | 34~50 | 650 | CGC-50 | 50 |
| 30.0 | 56.0 | GMS-63S 63A | 45~63 | 819 | CGC-65 | 65 |
| 37.0 | 68.0 | GMS-100S 75A | 55~75 | 975 | CGC-75 | 75 |
| - | - | GMS-100S 90A | 70~90 | 1170 | CGC-85 | 85 |
| 45.0 | 81.0 | GMS-100S 100A | 80~100 | 1300 | CGC-85 | 85 |

Definition type '2' coordination according to IEC 947-4-1

- The contactor or the starter must not endanger persons or systems in the event of a short-circuit.
- The contactor or the starter must be suitable for further use.
- No damage to the overload relay or other parts may occur with the exception of welding of the contactor or starter contacts provided that these can be easily separated without significant deformation (such as with a screwdriver).

Time/Current characteristic



I) Thermal release trip current :

The adjustable inverse bimetal trip reliability protects motors against overloads. The curve shows the mean operating current at an ambient temperature of 20 °C starting from cold. Careful testing and setting ensures effective motor protection even in the case of single-phasing.

II) Magnetic release trip current :

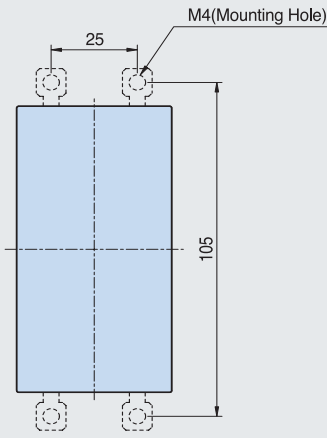
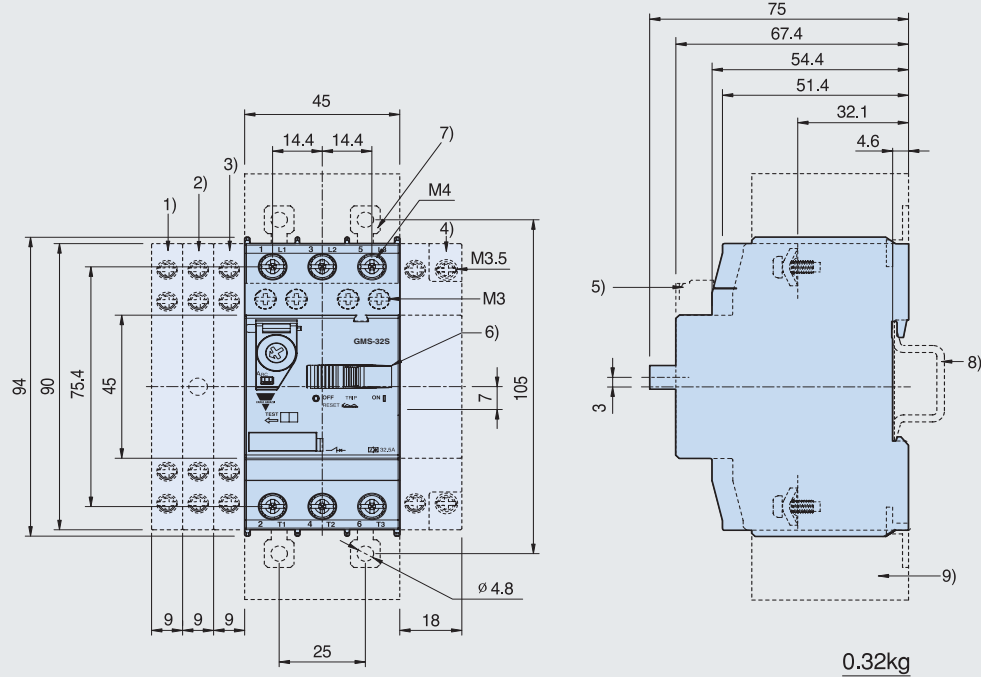
The instantaneous magnetic trip has a fixed operating current setting. This corresponds to 13times the maximum value of setting range, at a lower setting it is correspondingly higher.

Current setting Ie :

The overload trip corresponds to a thermal overload relay in a motor starter conforming to IEC 947-4-1. If a different value is prescribed (e.g. reduced Ie for cooling medium having a temperature higher than 40 °C or a place of installation higher than 2000m above sea level), the setting current is equal to the reduced rated current Ie of the motor.

● GMS-32S

[mm]



- 1) Side auxiliary switch
- 2) Side magnetic trip alarm switch
- 3) Side any trip alarm switch
- 4) Side shunt release or Side undervoltage release
- 5) Front auxiliary switch
- 6) Handle lock in OFF position($\phi 5$ mm)
- 7) Push-in Lugs for screw mounting
- 8) 35mm standard mounting rail acc. to EN 50 022
- 9) Arcing space

Height of arcing spaces
(Clearance from earthed parts)

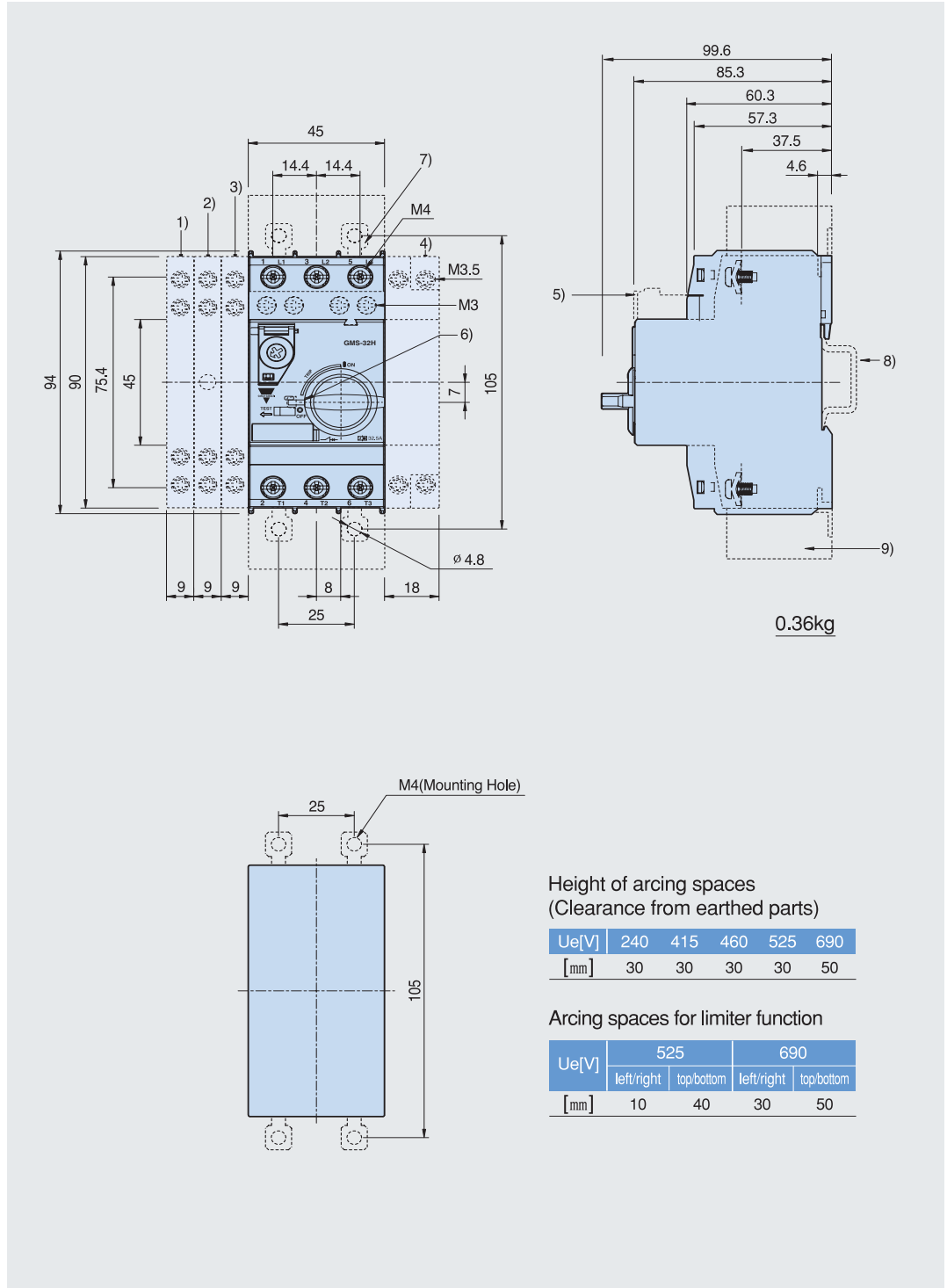
| Ue[V] | 240 | 415 | 460 | 525 | 690 |
|-------|-----|-----|-----|-----|-----|
| [mm] | 20 | 20 | 20 | 20 | 20 |

Arcing spaces for limiter function

| Ue[V] | 525 | | 690 | |
|-------|------------|------------|------------|------------|
| | left/right | top/bottom | left/right | top/bottom |
| [mm] | 10 | 40 | 30 | 50 |

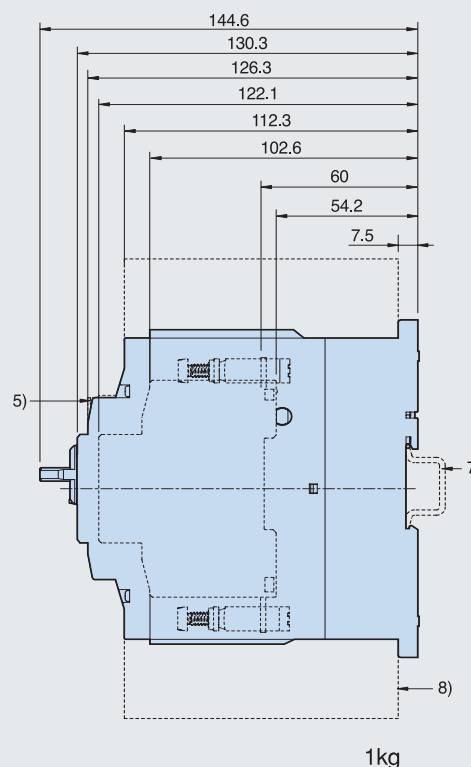
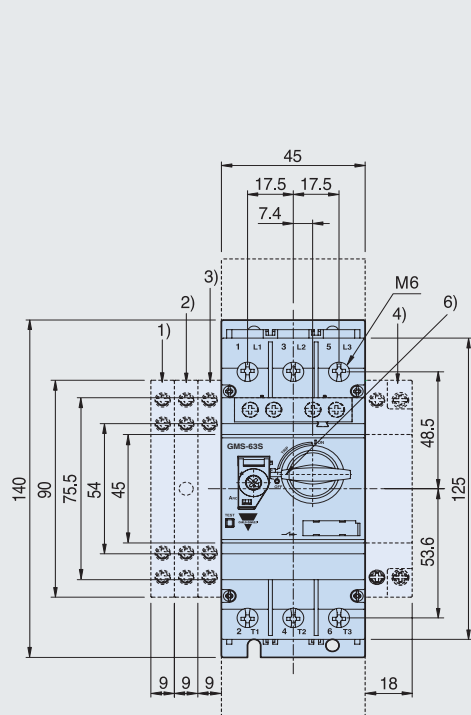
● GMS-32H, 32HI

[mm]

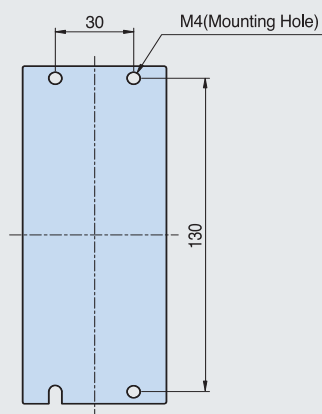


● GMS-63S, 63H, 63HI, 63HL

[mm]



1kg



- 1) Side auxiliary switch
- 2) Side magnetic trip alarm switch
- 3) Side any trip alarm switch
- 4) Side shunt release or Side undervoltage release
- 5) Front auxiliary switch
- 6) Handle lock in OFF position (∅ 5mm)
- 7) 35mm standard mounting rail acc. to EN 50 022
- 8) Arcing space

Height of arcing spaces
(Clearance from earthed parts)

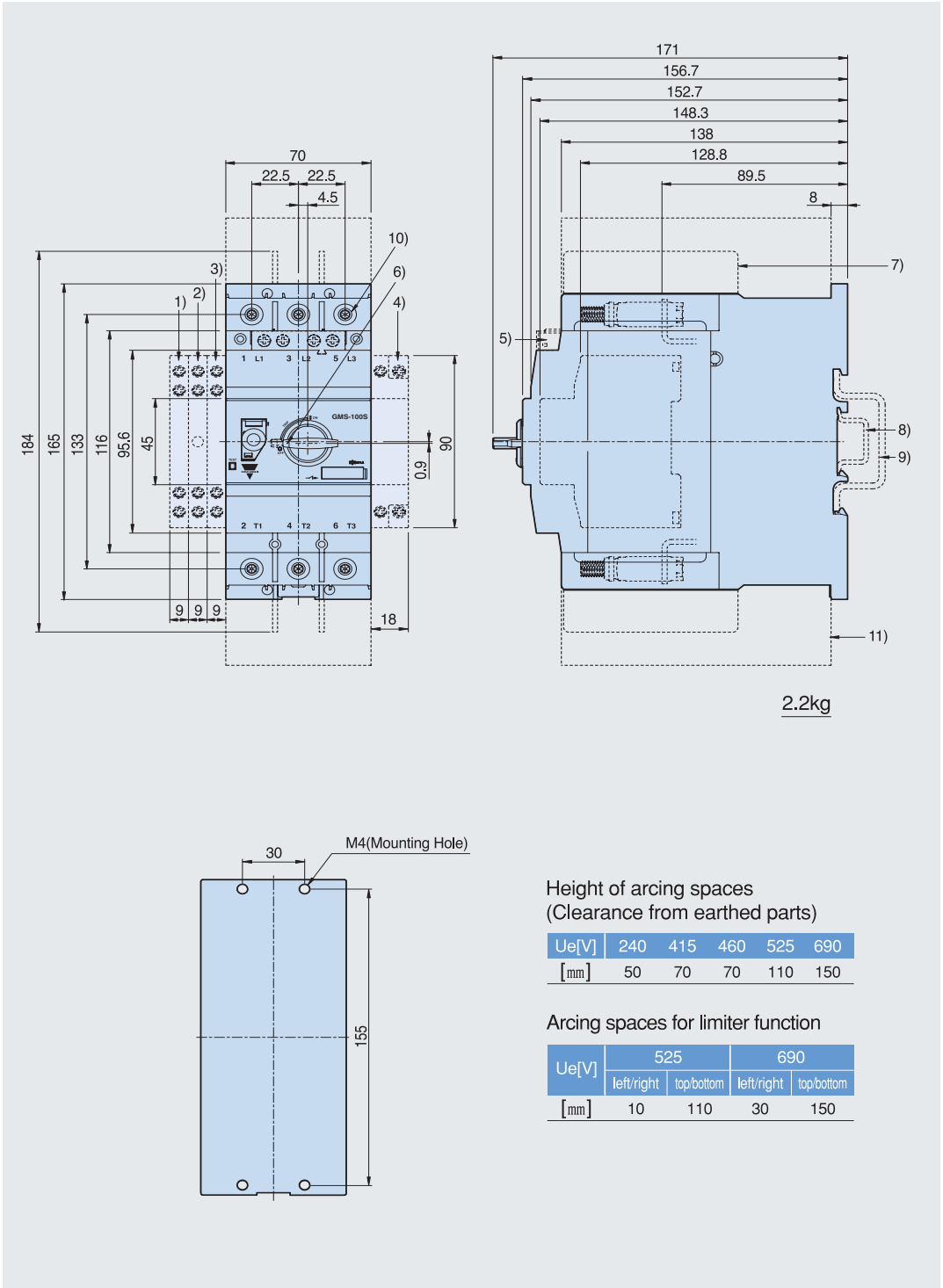
| Ue[V] | 240 | 415 | 460 | 525 | 690 |
|-------|-----|-----|-----|-----|-----|
| [mm] | 50 | 50 | 50 | 50 | 50 |

Arcing spaces for limiter function

| Ue[V] | 525 | | 690 | |
|-------|------------|------------|------------|------------|
| | left/right | top/bottom | left/right | top/bottom |
| [mm] | 10 | 50 | 10 | 50 |

● GMS-100S, 100H, 100HI, 100HL

[mm]



- 1) Side auxiliary switch
- 2) Side magnetic trip alarm switch
- 3) Side any trip alarm switch
- 4) Side shunt release or Side undervoltage release
- 5) Front auxiliary switch
- 6) Handle lock in OFF position (ø 5mm)
- 7) Insulation barrier
- 8) 35mm standard mounting rail acc. to EN 50 022
- 9) 75mm standard mounting rail acc. to EN 50 023
- 10) 4mm hexagon socket screw
- 11) Arcing space

Notes:





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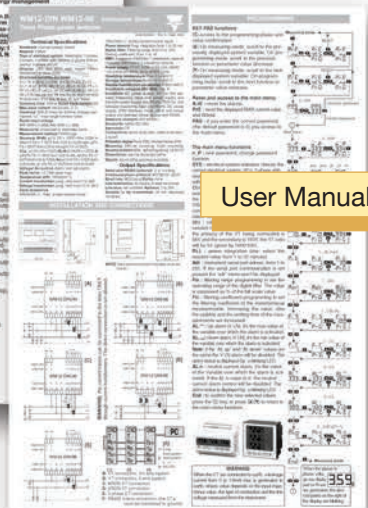
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MEXICO
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