# Product datasheet

Specifications

## TeSys GV7 - circuit breaker - 3P - AC-3 - 60...100 A - thermal-magnetic

GV7RE100

End-of-service on: 30 Jun 2022

Discontinued

## Main

| | |
|---|---|
| **Range** | TeSys |
| **Product name** | TeSys GV7 |
| **Product or component type** | Circuit breaker |
| **Device short name** | GV7R |
| **Device application** | Motor |
| **Poles description** | 3P |
| **Network type** | AC |
| **Utilisation category** | AC-3 conforming to IEC 60947-4-1 |
| **Network frequency** | 50/60 Hz conforming to IEC 60947-4-1 |
| **Breaking capacity** | 35 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>85 kA Icu at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>36 kA Icu at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>25 kA Icu at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>8 kA Icu at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| **[Ics] rated service short-circuit breaking capacity** | 100 % at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 220/240 V AC 50/60 Hz conforming to IEC 60947-2<br>100 % at 380/415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 % at 500 V AC 50/60 Hz conforming to IEC 60947-2<br>50 % at 660/690 V AC 50/60 Hz conforming to IEC 60947-2 |
| **thermal protection adjustment range** | 60…100 A |
| **Trip unit technology** | Thermal-magnetic |

## Complementary

| | |
|---|---|
| **Mounting mode** | By screws<br>By clips |
| **Mounting support** | Flush<br>Rail<br>Kit for fixing the switchgear<br>Panel mounting |
| **Mounting position** | Vertical |
| **Motor power kW** | 45 kW at 400...415 V AC 50/60 Hz<br>75 kW at 660...690 V AC 50/60 Hz |
| **control type** | Rocker lever |
| **[Ue] rated operational voltage** | 690 V AC 50/60 Hz conforming to IEC 60947-2 |
| **[Ui] rated insulation voltage** | 750 V AC 50/60 Hz conforming to IEC 60947-2 |
| **[Ith] conventional free air thermal current** | 100 A conforming to IEC 60947-4-1 |

| | |
|---|---|
| **[Uimp] rated impulse withstand voltage** | 8 kV conforming to IEC 60947-2 |
| **power dissipation per pole** | 5 W |
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| **Mechanical durability** | 50000 cycles |
| **Electrical durability** | 30000 cycles for AC-3 at 440 V In<br>50000 cycles for AC-3 at 440 V In/2 |
| **maximum operating rate** | 25 cyc/h |
| **Rated duty** | Continuous conforming to IEC 60947-4-1 |
| **Connection pitch** | 35 mm without spreaders<br>45 mm with spreaders |
| **Connections - terminals** | Bars<br>Cable with lug - external diameter: 10 mm<br>Screw<br>Bare cable connectors 1.5…95 mm² |
| **Tightening torque** | 10 N.m on screw M6 screw type<br>15 N.m on bare cable connectors for cable 1.5…95 mm² |
| **Mechanical robustness** | Shocks: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>Vibrations: 2.5 Gn, 0...25 Hz conforming to IEC 60068-2-6 |
| **Suitability for isolation** | Yes conforming to IEC 60947-1 |
| **Phase failure sensitivity** | Yes conforming to IEC 60947-4-1 § 7-2-1-5-2 |
| **Height** | 161 mm |
| **Width** | 105 mm |
| **Depth** | 111 mm |
| **Net weight** | 2.04 kg |

## Environment

| | |
|---|---|
| **Standards** | NF C 63-120<br>VDE 0660<br>NF C 63-650<br>EN/IEC 60947-1<br>EN/IEC 60947-4-1<br>EN/IEC 60947-2<br>VDE 0113<br>NF C 79-130 |
| **Product certifications** | DNV<br>UL |
| **Protective treatment** | TC |
| **IP degree of protection** | IP405 conforming to IEC 60529 (with terminal shrouds) |
| **Pollution degree** | 3 |
| **Ambient air temperature for operation** | -25…70 °C |
| **Ambient air temperature for storage** | -55…95 °C |
| **Fire resistance** | 960 °C conforming to IEC 60695-2-1 |
| **Operating altitude** | 2000 m |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 11.5 cm |

| | |
|---|---|
| **Package 1 Width** | 14 cm |
| **Package 1 Length** | 17.5 cm |
| **Package 1 Weight** | 1.928 kg |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Use Better

#### Materials and Substances

| | |
|---|---|
| EU RoHS Directive | **Not applicable, out of EU RoHS legal scope** |

### Use Again

#### Repack and remanufacture

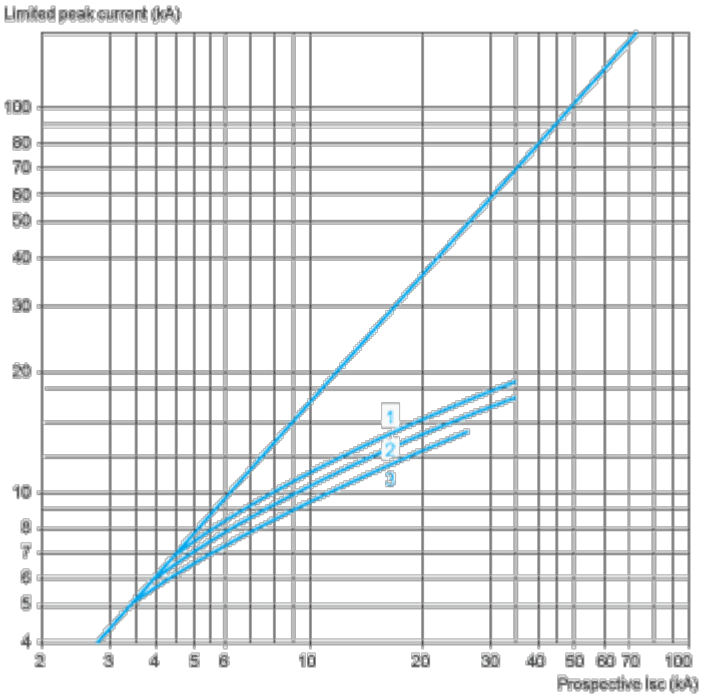
| | |
|---|---|
| WEEE Label |  **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins** |

## Performance Curves

### Current Limitation on Short-Circuit (3-Phase 400/415 V)

**Dynamic Stress**

I peak = f (prospective Isc)
For GV7RE only




1 GV7RE220

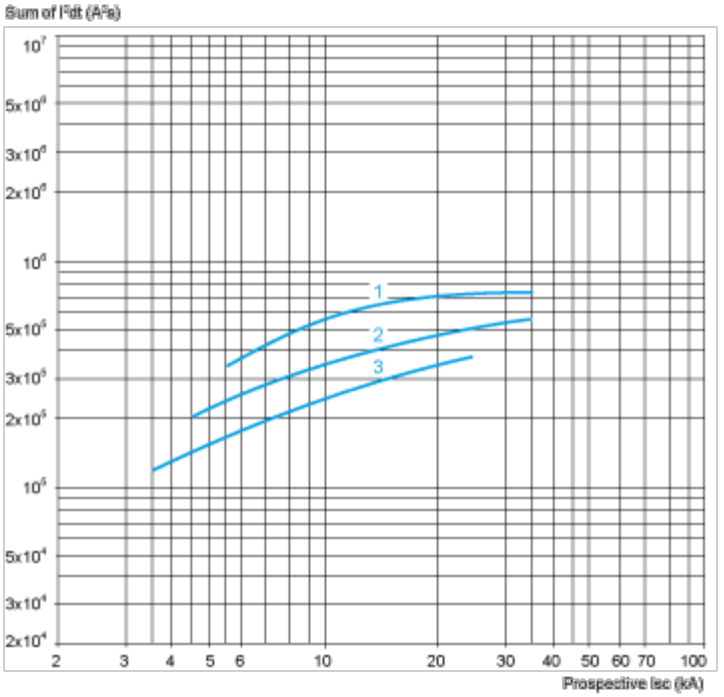
2 GV7RE150

3 GV7RE100

### Thermal Limit (3-Phase 400/415 V)

**Thermal Limit**

Sum of $I^2dt$ = f (prospective Isc)
For GV7RE only




1 GV7RE220

2 GV7RE150

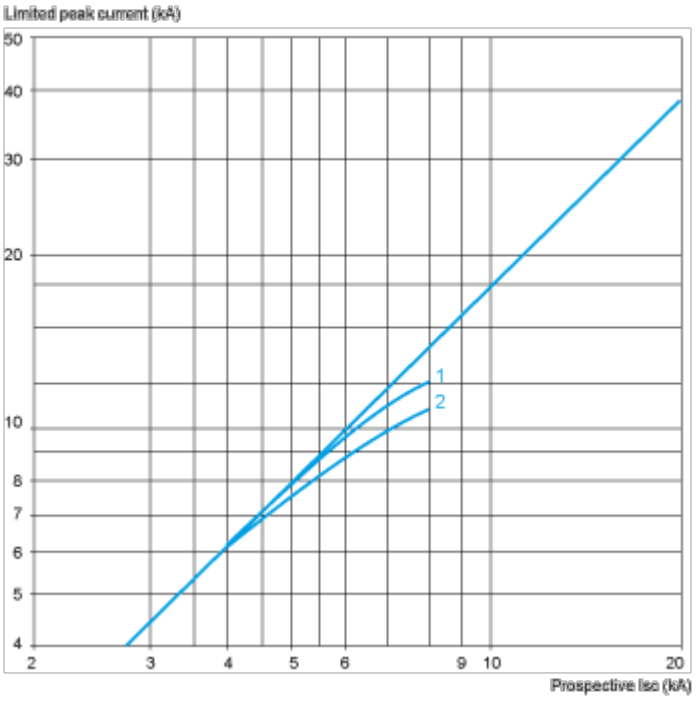
3 GV7RE100

### Current Limitation on Short-Circuit (3-Phase 690 V)

**Dynamic Stress**

I peak = f (prospective Isc)

For GV7RE only



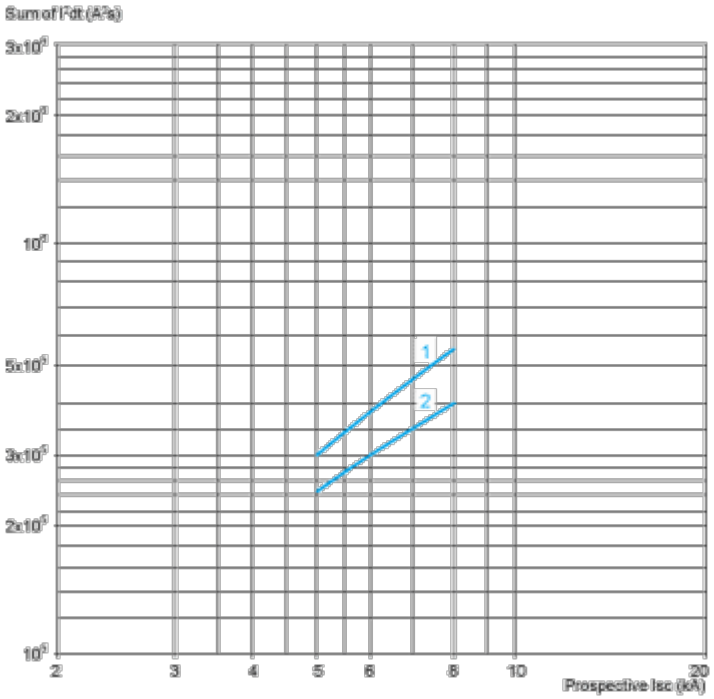

1 GV7RE220

2 GV7RE150 and GV7RE100

## Thermal Limit on Short-Circuit (3-Phase 690 V)

**Thermal Limit**

Sum of $I^2dt$ = f (prospective Isc)
For GV7RE only



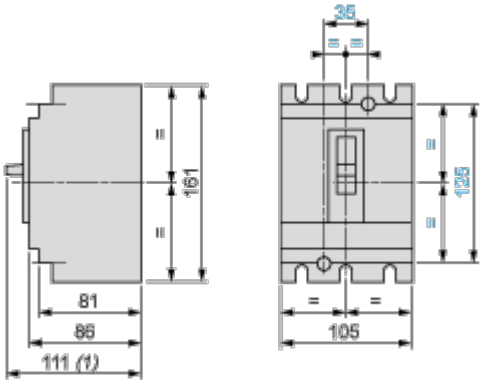

1 GV7RE220

2 GV7RE150 and GV7RE100

## Dimensions Drawings

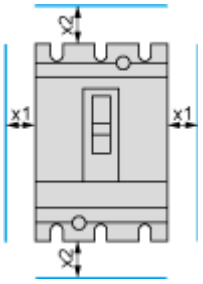
### GV7R

**Dimensions**




(1) 126 for GV7R•220.

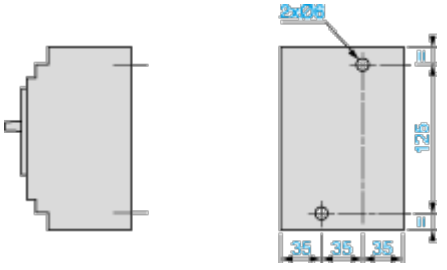
**Minimum Electrical Clearance**



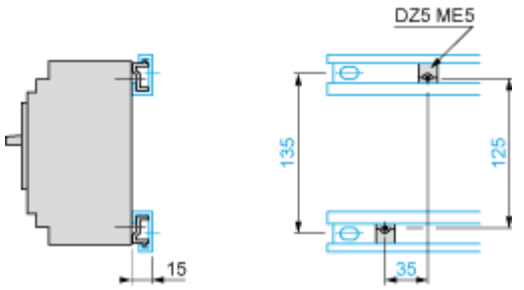

| | | x1 | x2 |
|---|---|---|---|
| Painted or insulated metal plate, insulation or insulated bar | | 0 | 30 |
| Bare metal plate | U ≤ 440 V | 5 | 35 |
| | 440 V < U < 600 V | 10 | 35 |
| | U ≥600 V | 20 | 35 |

### GV7R

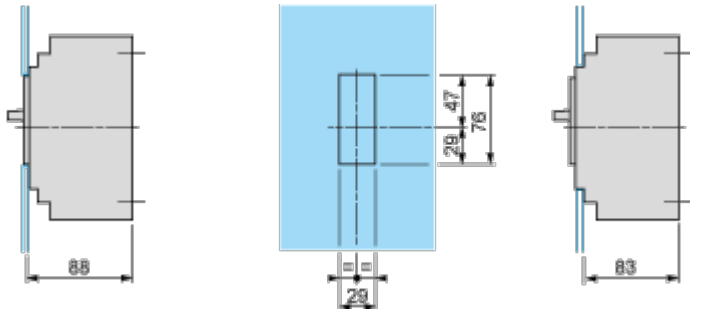
**Panel Mounting**



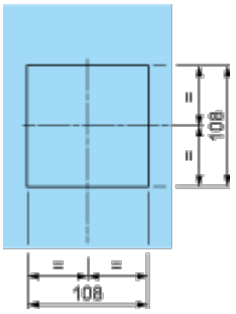

**Mounting on 2 Mounting Rails DZ5 MB201**



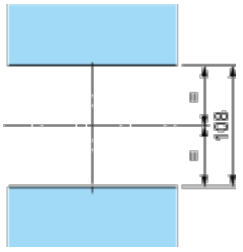

**Flush-Mounting**



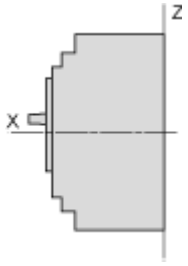

1 circuit breaker GV7R



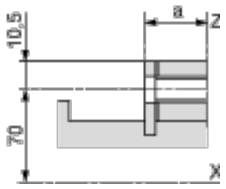

n circuit breakers GV7R side by side




## Connection

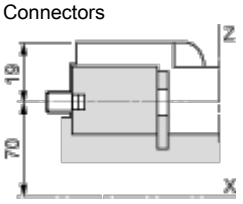



Smooth terminals




| | a |
|---|---|
| GV7R●40…R●150 | 19.5 |
| GV7R●220 | 21.5 |

Connectors



## Connections and Schema

**Motor Circuit Breakers**
GV7 R