

## Product data sheet

### Characteristics

# GV4PEM115N

TeSys Deca, Motor circuit breaker, TeSys GV4, 3P, 115A, Icu 50kA, thermal magnetic multifunction, Everlink terminals



### Main

|                           |                                |
|---------------------------|--------------------------------|
| Range of product          | TeSys GV4                      |
| Range                     | TeSys Deca<br>TeSys Deca       |
| Device short name         | GV4PEM                         |
| Product name              | TeSys GV4<br>TeSys Deca        |
| Product or component type | Motor circuit breaker          |
| Device application        | Motor protection               |
| Trip unit technology      | Electronic<br>Thermal-magnetic |

### Complementary

|   |   |
|---|---|
| Poles description                           | 3P  |
| Utilisation category                        | Category A conforming to IEC 60947-2<br>AC-3 conforming to IEC 60947-4-1  |
| Operating position                          | Any position  |
| Motor power kW                              | 37 kW at 400...415 V AC 50/60 Hz<br>45 kW at 400...415 V AC 50/60 Hz<br>55 kW at 400...415 V AC 50/60 Hz<br>45 kW at 500 V AC 50/60 Hz<br>55 kW at 500 V AC 50/60 Hz<br>75 kW at 500 V AC 50/60 Hz<br>75 kW at 660...690 V AC 50/60 Hz<br>90 kW at 660...690 V AC 50/60 Hz<br>110 kW at 660...690 V AC 50/60 Hz   |
| Breaking capacity                           | 100 kA Icu at 220...240 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA Icu at 380...415 V AC 50/60 Hz conforming to IEC 60947-2<br>50 kA Icu at 440 V AC 50/60 Hz conforming to IEC 60947-2<br>15 kA Icu at 525 V AC 50/60 Hz conforming to IEC 60947-2<br>65 kA at 208Y/120 V AC 50/60 Hz conforming to UL 60947<br>65 kA at 240 V AC 50/60 Hz conforming to UL 60947<br>35 kA at 480Y/277 V AC 50/60 Hz conforming to UL 60947<br>8 kA Icu at 660...690 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>18 kA at 600Y/347 V AC 50/60 Hz conforming to UL 60947 |
| Control type                                | Toggle  |
| [In] rated current                          | 115 A   |
| Magnetic tripping current                   | 1955 A  |
| [Ue] rated operational voltage              | 690 V AC 50/60 Hz conforming to IEC 60947-2   |
| [Ui] rated insulation voltage               | 800 V AC 50/60 Hz conforming to IEC 60947-2   |
| [Ith] conventional free air thermal current | 115 A conforming to IEC 60947-4-1   |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947-2  |
| Power dissipation per pole                  | 4.6 W   |
| Mechanical durability                       | 40000 cycles  |
| Electrical durability                       | 10000 Cycles for AC-3 at 440 V In/2<br>5000 cycles for AC-3 at 440 V In   |
| Maximum operating rate                      | 25 cyc/h  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                           |  |
|---------------------------|--|
| Rated duty                | Continuous conforming to IEC 60947-4-1   |
| Connections - terminals   | EverLink BTR screw connectors (top) 1 cable(s) 1.5...70 mm <sup>2</sup> - solid<br>EverLink BTR screw connectors (top) 1 cable(s) 1.5...50 mm <sup>2</sup> - flexible<br>EverLink BTR screw connectors (bottom) 1 cable(s) 2.5...95 mm <sup>2</sup> - solid<br>EverLink BTR screw connectors (bottom) 1 cable(s) 2.5...70 mm <sup>2</sup> - flexible |
| Tightening torque         | 9 N.M for cable 16...95 mm <sup>2</sup><br>5 N.m for cable 1.5...10 mm <sup>2</sup>  |
| Mechanical robustness     | Vibrations: +/- 1 mm 2...13.2 Hz conforming to IEC 60068-2-6<br>Vibrations: 0.7 gn 13.2...100 Hz conforming to IEC 60068-2-6<br>Shocks: 15 gn 11 ms conforming to IEC 60068-2-27   |
| Phase failure sensitivity | Yes conforming to IEC 60947-4-1  |
| Height                    | 155 mm   |
| Width                     | 81 mm  |
| Depth                     | 116 mm   |
| Net weight                | 1.45 kg  |
| Colour                    | Grey (RAL 7016)  |
| Suitability for isolation | Yes conforming to IEC 60947-1  |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | CSA C22.2 No 60947-4-1<br>UL 60947-4-1<br>EN/IEC 60947-4-1<br>EN/IEC 60947-2 |
| Product certifications                | IEC[RETURN]UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]ATEX[RETURN]EU-RO MR   |
| Climatic withstand                    | Conforming to IACS E10   |
| IK degree of protection               | IK07 conforming to IEC 62262   |
| Pollution degree                      | 3  |
| IP degree of protection               | IP40 conforming to IEC 60529   |
| Ambient air temperature for storage   | -50...85 °C  |
| Fire resistance                       | 960 °C conforming to IEC 60695-2-11  |
| Operating altitude                    | 5000 m   |
| Ambient air temperature for operation | -25...70 °C  |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 17.0 cm |
| Package 1 Width              | 11.0 cm |
| Package 1 Length             | 22.0 cm |
| Package 1 Weight             | 1.66 kg |
| Unit Type of Package 2       | S03     |
| Number of Units in Package 2 | 5       |
| Package 2 Height             | 30 cm   |
| Package 2 Width              | 30 cm   |
| Package 2 Length             | 40 cm   |
| Package 2 Weight             | 9 kg    |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Compliant with Exemptions   |
| Mercury free               | Yes   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |

|                             |   |
|-----------------------------|---|
| Circularity Profile         | <a href="#">End Of Life Information</a>   |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                    | Yes   |
| Halogen content performance | Halogen free plastic parts product  |

### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Thermal-Magnetic Tripping Curves for GV4P, GV4PE, GV4PEM

Average Operating Times at 20 °C Related to Multiples of the Setting Current

Hot state



- 1 Class 10
- 2 Class 20
- 3  $I_{sd} = 5...13 \times I_r$
- 4  $I_i = 17 I_n$

## Cold state



- 1 Class 10
- 2 Class 20
- 3  $I_{sd} = 5 \dots 13 \times I_r$
- 4  $I_i = 17 I_n$

## Current Limitation on Short-Circuit for GV4P, GV4PE, GV4PEM (3-Phase 400/415 V)

Dynamic Stress

$I_{\text{peak}} = f(\text{prospective } I_{sc}) \text{ at } 1.05 U_e = 435 \text{ V}$

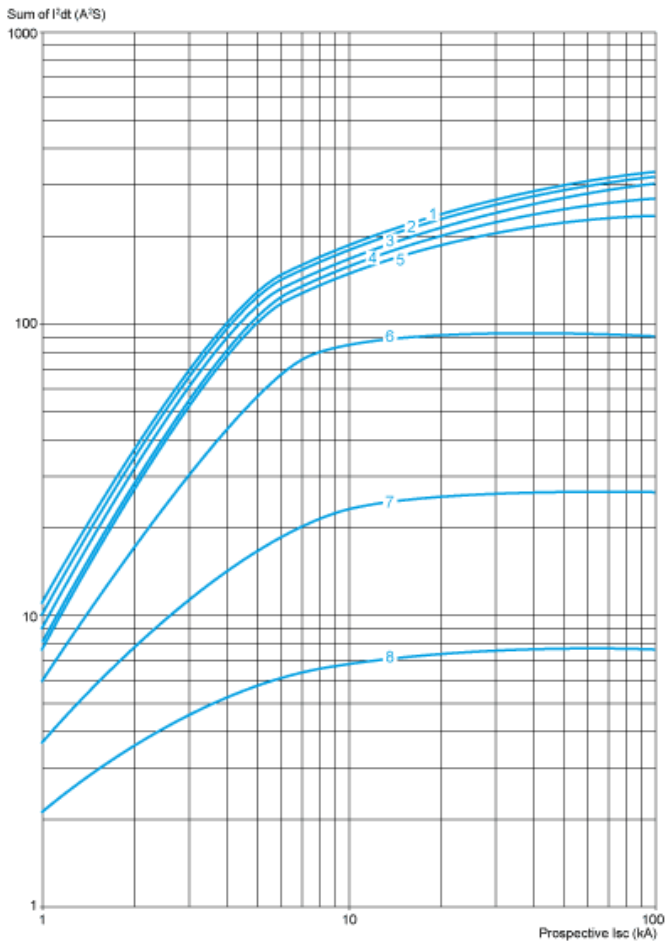


- 1 Maximum peak current
- 2 GV4P115
- 3 GV4P80
- 4 GV4P50
- 5 GV4P25
- 6 GV4P12
- 7 GV4P07
- 8 GV4P03
- 9 GV4P02

### Thermal Limit on Short-Circuit for GV4P, GV4PE, GV4PEM

Thermal Limit in  $kA^2s$  in the Magnetic Operating Zone

Sum of  $I^2dt = f$  (prospective Isc) at  $1.05 U_e = 435 V$



- 1 GV4P115
- 2 GV4P80
- 3 GV4P50
- 4 GV4P25
- 5 GV4P12
- 6 GV4P07
- 7 GV4P03
- 8 GV4P02

GV4 with Toggle: GV4LE, GV4PE, GV4PEM

With EverLink® Connector



With Crimp Lug Connector



GV4 with Rotary Handle: GV4L, GV4P, or GV4LE, GV4PE, GV4PEM with GV4ADN01, GV4ADN02 Direct Mounting Rotary Handle

Dimensions



GV4L, GV4P, GV4LE, GV4PE, GV4PEM

Panel Mounting with M4 Screws



Door Cut-Out for Rotary Handle





Minimum Safety Clearance



Toggle-type, rotary handle-type: identical clearance values.

| Safety Clearance (mm) |                     |   |   |                  |   |   |
|-----------------------|---------------------|---|---|------------------|---|---|
|                       | Painted Sheet Metal |   |   | Bare Sheet Metal |   |   |
|                       | A                   | B | C | A                | B | C |
| No accessory          | 30                  | 0 | 0 | 40               | 0 | 5 |
| Interphase barriers   | 0                   | 0 | 0 | 0                | 0 | 5 |
| Long terminal shield  | 0                   | 0 | 0 | 0                | 0 | 5 |

Magnetic Motor Circuit Breakers

GV4P, GV4PE, GV4PEM

