



Part of Easy series
Easy TeSys

Catalog 2023



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Life Is On





Green Premium™

An industry leading portfolio of offers delivering sustainable value



More than 75% of our product sales offer superior transparency on the material content, regulatory information and environmental impact of our products:

- RoHS compliance
- REACh substance information
- Industry leading # of PEP's*
- Circularity instructions



Discover what we mean by green
Check your products!

The Green Premium program stands for our commitment to deliver customer valued sustainable performance. It has been upgraded with recognized environmental claims and extended to cover all offers including Products, Services and Solutions.

CO₂ and P&L impact through... Resource Performance

Green Premium brings improved resource efficiency throughout an asset's lifecycle. This includes efficient use of energy and natural resources, along with the minimization of CO₂ emissions.

Cost of ownership optimization through... Circular Performance

We're helping our customers optimize the total cost of ownership of their assets. To do this, we provide IoT-enabled solutions, as well as upgrade, repair, retrofit, and remanufacture services.

Peace of mind through... Well-being Performance

Green Premium products are RoHS and REACh compliant. We're going beyond regulatory compliance with step-by-step substitution of certain materials and substances from our products.

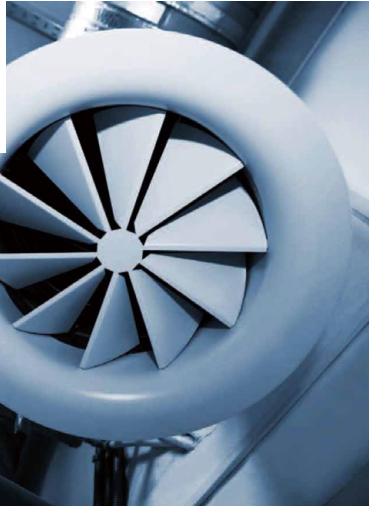
Improved sales through... Differentiation

Green Premium delivers strong value propositions through third-party labels and services. By collaborating with third-party organizations we can support our customers in meeting their sustainability goals such as green building certifications.

*PEP: Product Environmental Profile (i.e. Environmental Product Declaration)

90 years of leadership in motor starter technology

Easy TeSys provides you **Essential** control & protection for your applications:



> **Easy** choice for
simple applications

Easy TeSys



Control motor and other loads

> Easy TeSys™ Contactors 9 A to 65 A

- Characteristics ▶ A-1
- Accessories, spare parts ▶ A-8
- Dimensions, mounting ▶ A-9



Protect your load
(direct mounting under contactors)

> Easy TeSys™ Thermal Overload Relays up to 65 A

- Characteristics ▶ B-2
- Dimensions, mounting ▶ B-4



Standalone and group applications

> Easy TeSys™ Manual Motor Starters up to 32 A

- Presentation ▶ C-1
- References ▶ C-1
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- Dimensions, mounting ▶ C-5

Easy TeSys Contactors



DPE 09●●



DPE 38●●



DPE 65●●

Presentation

An easy solution for OEM's, panel builders, contractors and system integrators who have a need for motor control, resistive load switching, and isolation applications. For use on conveyors, packaging, pumps, compressors, HVAC, refrigeration, furnace applications, and more!

Easy TeSys contactors are ideal for these types of applications with power ratings and an operational life of approximately 1 million electrical operations. UL/CSA approved rated current up to 65 amps, 40 HP/600 VAC.

They are suitable for the utilisation categories specified in standard IEC 60947:

- **AC-1:** non inductive loads or slightly inductive loads, resistance furnaces
- **AC-3:** squirrel cage motors. Motor starting and breaking while running.
Example: standard squirrel cage motors, pumps and fans.
- **AC-4:** squirrel cage or slip ring motors. Applications with reverse current braking and inching.
- **AC-8a:** control of sealed refrigeration compressor motors with manual reset of overload trips.
- **AC-8b:** control of sealed refrigeration compressor motors with automatic reset of overload trips.

3-pole Contactors for Connection by Screw Clamp Terminals

| Utilisation category AC-3 | | | | | | | Instantaneous Auxiliary Contact | Basic Reference To be Completed by Adding the Voltage Code | Weight |
|--|-------|-------|-------|-------|-------|---------|---------------------------------|--|--------|
| Standard Power Ratings of 3-phase Motors 50/60 Hz ($\theta \leq 60^\circ\text{C}$) | | | | | | | | | |
| 220 V | 380 V | 415 V | 440 V | 500 V | 660 V | V up to | | | |
| 230 V | 400 V | | | | 690 V | | | | |
| kW | kW | kW | kW | kW | kW | A | | Lb | |
| 2.2 | 4 | 4 | 4 | 5.5 | 5.5 | 9 | 1 | DPE 09●● 0.705 (0.320 kg) | |
| 3 | 5.5 | 5.5 | 5.5 | 7.5 | 7.5 | 12 | 1 | DPE 12●● 0.717 (0.325 kg) | |
| 4 | 7.5 | 9 | 9 | 10 | 10 | 18 | 1 | DPE 18●● 0.728 (0.330 kg) | |
| 5.5 | 11 | 11 | 11 | 15 | 15 | 25 | 1 | DPE 25●● 0.816 (0.370 kg) | |
| 7.5 | 15 | 15 | 15 | 18.5 | 18.5 | 32 | 1 | DPE 32●● 0.827 (0.375 kg) | |
| 9 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 38 | 1 | DPE 38●● 0.838 (0.380 kg) | |
| 11 | 18.5 | 22.0 | 22.0 | 22.0 | 30.0 | 40 | 1 | DPE 40●● 1.89 (0.850 kg) | |
| 15 | 22.0 | 25.0 | 30.0 | 30.0 | 33.0 | 50 | 1 | DPE 50●● 1.89 (0.850 kg) | |
| 19 | 30.0 | 30.0 | 30.0 | 37.0 | 37.0 | 65 | 1 | DPE 65●● 1.90 (0.855 kg) | |

3-pole Contactors Conforming to UL and CSA Standards (North American Market)

| Standard Power Ratings of Motors 50/60 Hz $\theta < 140^\circ\text{F}$ (60°C) | | | | | | | Associated Cable Type 75°C-Cu | Continuous Current | Basic Reference To be Completed by Adding the Voltage Code | Weight |
|---|-------|-------|-------|-------|-------|---------|-------------------------------|---------------------------|--|--------|
| Single-phase 1 ϕ | | | | | | | | | | |
| 115 V | 230 V | 200 V | 230 V | 460 V | 575 V | | | | | |
| 240 V | 208 V | 240 V | 480 V | 600 V | | | | | | |
| HP | HP | HP | HP | HP | HP | AWG | A | Lb | | |
| 1/3 | 1 | 2 | 2 | 3 | 7.5 | 18...10 | 20 | DPE 09●● 0.705 (0.320 kg) | | |
| 1/3 | 1 | 2 | 2 | 5 | 7.5 | 18...10 | 25 | DPE 12●● 0.717 (0.325 kg) | | |
| 1/2 | 2 | 3 | 3 | 7.5 | 10 | 18...10 | 25 | DPE 18●● 0.728 (0.330 kg) | | |
| 1 | 3 | 5 | 5 | 10 | 15 | 18...8 | 32 | DPE 25●● 0.816 (0.370 kg) | | |
| 2 | 3 | 7.5 | 7.5 | 15 | 20 | 14...6 | 40 | DPE 32●● 0.827 (0.375 kg) | | |
| 2 | 5 | 10 | 10 | 20 | 25 | 14...6 | 52 | DPE 38●● 0.838 (0.380 kg) | | |
| 3 | 5 | 7.5 | 7.5 | 30 | 25 | 14...6 | 60 | DPE 40●● 1.89 (0.850 kg) | | |
| 3 | 5 | 10.0 | 10.0 | 30 | 30 | 14...6 | 70 | DPE 50●● 1.89 (0.850 kg) | | |
| 3 | 8 | 15.0 | 15.0 | 40 | 40 | 14...6 | 80 | DPE 65●● 1.90 (0.855 kg) | | |

Utilisation Category AC-1

| Non Inductive Loads Maximum Current ($\theta \leq 60^\circ\text{C}$) | Instantaneous Auxiliary Contact | Basic Reference To be Completed by Adding the Voltage Code (1)(2) | Weight |
|--|---------------------------------|---|--------------------------|
| A | | | Lb |
| 20 | 1 | DPE 09●● | 0.705 (0.320 kg) |
| 25 | 1 | DPE 12●● | 0.717 (0.325 kg) |
| 32 | 1 | DPE 18●● | 0.728 (0.330 kg) |
| 40 | 1 | DPE 25●● | 0.816 (0.370 kg) |
| 50 | 1 | DPE 32●● | 0.827 (0.375 kg) |
| | | or | |
| 60 | 1 | DPE 38●● | 0.838 (0.380 kg) |
| 80 | 1 | DPE 40●● | 1.89 (0.850 kg) |
| 80 | 1 | DPE 50●● | 1.89 (0.850 kg) |
| | | | DPE 65●● 1.90 (0.855 kg) |

Control Circuit Voltages

| AC Supply | | | |
|---------------|----|-------|---------|
| Volts | 24 | 120 | 230 240 |
| 50/60 Hz | B7 | G7(4) | P7 U7 |
| DC Supply (3) | | | |
| Volts | 24 | 24 | |
| | BL | BD | |

(1) The weight indicated are for contactors with AC control circuit. For DC or low consumption control circuit, space add 0.160 kg from DPE09 to DPE38, 0.075 kg from DPE40 to DPE65.

(2) Built-in suppression device, by bi-directional peak limiting diode.

(3) BL is for DPE09...38 only, and BD is for DPE40...65 only.

(4) DPE40, DPE50, DPE65 for this coil voltage use is only on 60Hz.

| Environment Characteristics | | | | | |
|---|---|-------------|---|-------------|-------|
| Contactor Type | | DPE 09...25 | DPE 32...38 | DPE 40...65 | |
| Rated insulation voltage (Ui) | Conforming to IEC 60947-4-1, overvoltage category III, degree of pollution: 3 | V | 690 | | |
| | Conforming to UL, CSA | V | 600 | | |
| Rated impulse withstand voltage (Uimp) | Conforming to IEC 60947 | kV | 6 | | |
| Conforming to standards | | | IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1 | | |
| Product certifications | | | UL, CSA | | |
| Degree of protection (1) (front face only) | Power connection | | Protection against direct finger contact IP 2X | | |
| | Coil connection | | Protection against direct finger contact IP 2X | | |
| Protective treatment | Conforming to IEC 60068 | | "TH" | | |
| Ambient air temperature around the device | Storage | °F | -76...176 (-60...80°C) | | |
| | Operation | °F | 23...140 (-5...60°C) | | |
| | Permissible | °F | 140...158 (60...70°C), for operation at U _c | | |
| Maximum operating altitude | Without derating | ft | 6561.68 (2000 m) | | |
| Operating positions | Without derating | | ± 30° occasional, in relation to normal vertical mounting plane | | |
| Flame resistance | Conforming to UL 94 | | V1 | | |
| | Conforming to IEC 60695-2-1 | °F | 850°C | | |
| Shock resistance (2) 1/2 sine wave = 11 ms | Contactor open | | 8 gn | 6.4 gn | 10 gn |
| | Contactor closed | | 12 gn | 12 gn | 15 gn |
| Vibration resistance (2) 5...300 Hz | Contactor open | | 1.6 gn | 1.6 gn | 2 gn |
| | Contactor closed | | 3.2 gn | 3.2 gn | 4 gn |

| Power Circuit Connection Characteristics | | | | | | | | | |
|--|--------------------|-----------------|--------------------|--------------------|--------------------|--------------------|---|---|---|
| Connection by Cable | | | | | | | | | |
| Contactor Type | | DPE 09...18 | DPE 25 | DPE 32 | DPE 38 | DPE 40 | DPE 50 | DPE 65 | |
| Tightening torque | | Screw terminals | | | | | | | |
| Flexible cable without cable end | 1 conductor | mm ² | 1...4 | 1.5...6 | 1.5...10 | 2.5...10 | 2.5...25 | 2.5...25 | 2.5...25 |
| | 2 conductors | mm ² | 1...4 | 1.5...6 | 1.5...6 | 2.5...10 | 2.5...16 | 2.5...16 | 2.5...16 |
| Flexible cable with cable end | 1 conductor | mm ² | 1...4 | 1...6 | 1...6 | 1...10 | 2.5...25 | 2.5...25 | 2.5...25 |
| | 2 conductors | mm ² | 1...2.5 | 1...4 | 1...4 | 1.5...6 | 2.5...10 | 2.5...10 | 2.5...10 |
| Solid cable without cable end | 1 conductor | mm ² | 1...4 | 1.5...6 | 1.5...6 | 1.5...10 | 2.5...25 | 2.5...25 | 2.5...25 |
| | 2 conductors | mm ² | 1...4 | 1.5...6 | 1.5...6 | 2.5...10 | 2.5...16 | 2.5...16 | 2.5...16 |
| Screwdriver | Philips | | N°2 | N°2 | N°2 | N°2 | - | - | - |
| | Flat screwdriver Ø | | Ø 6 | Ø 6 | Ø 6 | Ø 6 | - | - | - |
| Hexagonal key | | mm | - | - | - | - | 4 | 4 | 4 |
| Tightening torque | | Lbf.in | 15.05 (1.7 N.m) | 15.05 (1.7 N.m) | 15.05 (1.7 N.m) | 15.05 (1.7 N.m) | 62 (7 N.m): 16-25 mm ² 45 (5 N.m): 2.5-16 mm ² | 62 (7 N.m): 16-25 mm ² 45 (5 N.m): 2.5-16 mm ² | 62 (7 N.m): 16-25 mm ² 45 (5 N.m): 2.5-16 mm ² |
| AWG | | | 14...6 | 14...6 | 14...6 | 14...6 | 14...4 | 14...4 | 14...4 |

(1) Protection provided for the cabling c.s.a.'s indicated below and for connection by cable.

(2) Without modifying the contact states, in the most unfavourable direction (coil energised at U_e).

Control Circuit Connection Characteristics

Connection by Cable (Screw Clamp Connections)

| Contactor Type | | | DPE 09...18 | DPE 25 | DPE 32 | DPE 38 | DPE 40 | DPE 50 | DPE 65 |
|---|--------------------|-----------------|-------------|---------|---------|---------|---------|---------|---------|
| Flexible cable without cable end | 1 conductor | mm ² | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 |
| | 2 conductors | mm ² | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 |
| Flexible cable with cable end | 1 conductor | mm ² | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 |
| | 2 conductors | mm ² | 1...2.5 | 1...2.5 | 1...2.5 | 1...2.5 | 1...2.5 | 1...2.5 | 1...2.5 |
| Solid cable without cable end | 1 conductor | mm ² | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 |
| | 2 conductors | mm ² | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 | 1...4 |
| Screwdriver | Philips | | N°2 | N°2 | N°2 | N°2 | N°2 | N°2 | N°2 |
| | Flat screwdriver Ø | | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 | Ø 6 |
| Tightening torque | | N.m | 1.7 | 1.7 | 2.5 | 2.5 | 1.7 | 1.7 | 1.7 |
| AWG | | | 10...18 | 10...18 | 10...18 | 10...18 | 16...12 | 16...12 | 16...12 |

Pole Characteristics

| Contactor Type | | | DPE 09 | DPE 12 | DPE 18 | DPE 25 | DPE 32 | DPE 38 | DPE 40 | DPE 50 | DPE 65 |
|---|---|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Rated operational current (Ie) | In AC-3, $\theta \leq 140^\circ\text{F}$ (60°C) | A | 9 | 12 | 18 | 25 | 32 | 38 | 40 | 50 | 65 |
| | ($U_e \leq 440\text{ V}$) In AC-1, $\theta \leq 140^\circ\text{F}$ (60°C) | A | 20 | 25 | 32 | 40 | 50 | 50 | 60 | 80 | 80 |
| Electrical durability at rated operational current | @600 V | | 1M | | | | | | | | 0.8M |
| Rated operational voltage (Ue) | Up to | V | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 |
| Frequency limits | Of the operating current | Hz | 25...400 | 25...400 | 25...400 | 25...400 | 25...400 | 25...400 | 25...400 | 25...400 | 25...400 |
| Conventional thermal current (Ith) | $\theta 140^\circ\text{F}$ (60°C) | A | 25 | 25 | 32 | 40 | 50 | 50 | 60 | 60 | 60 |
| Rated making capacity (440 V) | Conforming to IEC 60947 | | 250 | 250 | 300 | 450 | 550 | 550 | 800 | 800 | 900 |
| Rated breaking capacity (440 V) | Conforming to IEC 60947 | | 250 | 250 | 300 | 450 | 550 | 550 | 800 | 800 | 900 |
| Permissible short time rating | For 1 s | A | 210 | 210 | 240 | 380 | 430 | 430 | 720 | 720 | 810 |
| | No current flowing for preceding 15 minutes with $\theta \leq 104^\circ\text{F}$ (40°C) | A | 105 | 105 | 145 | 240 | 260 | 310 | 320 | 320 | 400 |
| | For 10 s | A | 61 | 61 | 84 | 120 | 138 | 150 | 165 | 165 | 208 |
| | For 10 min | A | 30 | 30 | 40 | 50 | 60 | 60 | 72 | 72 | 84 |
| Protection by fuses | Without thermal overload relay, Type 1 | A | 25 | 40 | 50 | 63 | 63 | 63 | 80 | 100 | 125 |
| | gG fuse, Type 2 | A | 20 | 25 | 35 | 40 | 63 | 63 | 80 | 100 | 125 |
| Average impedance per pole | At Ith and 50 Hz | mΩ | 2.5 | 2.5 | 2.5 | 2 | 2 | 2 | 1.5 | 1.5 | 1.5 |
| Power dissipated per pole for the above operational currents | AC-3 | W | 0.20 | 0.36 | 0.8 | 1.25 | 2 | 3 | 2.4 | 3.7 | 6.3 |
| | AC-1 | W | 1.56 | 1.56 | 2.5 | 3.2 | 5 | 5 | 5.4 | 9.6 | 9.6 |

Applications with High-Fault Short-Circuit Current ratings

High fault short-circuit current rating with fuses

| Cat. Nos. | Max Current | Max Voltage | Maximum Class J Fuse Size |
|-----------|-------------|-------------|---------------------------|
| DPE09 | 100 kA | 600 VAC | 25 A |
| DPE12 | 100 kA | 600 VAC | 25 A |
| DPE18 | 100 kA | 600 VAC | 30 A |
| DPE25 | 100 kA | 600 VAC | 40 A |
| DPE32 | 100 kA | 600 VAC | 60 A |
| DPE38 | 100 kA | 600 VAC | 80 A |
| DPE40 | 100 kA | 600 VAC | 90 A |
| DPE50 | 100 kA | 600 VAC | 110 A |
| DPE65 | 100 kA | 600 VAC | 125 A |

High fault short-circuit current rating with circuit breakers

| Cat. Nos. | Max Current | Max Voltage | Maximum Listed Circuit Breaker Size |
|-----------|-------------|-------------|-------------------------------------|
| DPE09 | 35 kA | 480 VAC | 35 A |
| DPE12 | 35 kA | 480 VAC | 35 A |
| DPE18 | 35 kA | 480 VAC | 35 A |
| DPE25 | 35 kA | 480 VAC | 60 A |
| DPE32 | 35 kA | 480 VAC | 60 A |
| DPE38 | 35 kA | 480 VAC | 60 A |
| DPE40 | 35 kA | 480 VAC | 110 A |
| DPE50 | 35 kA | 480 VAC | 110 A |
| DPE65 | 35 kA | 480 VAC | 110 A |

High fault short-circuit current rating with circuit breakers

| Cat. Nos. | Max Current | Max Voltage | Maximum Listed Circuit Breaker Size |
|-----------|-------------|-------------|-------------------------------------|
| DPE09 | 18 kA | 600 VAC | 35 A |
| DPE12 | 18 kA | 600 VAC | 35 A |
| DPE18 | 18 kA | 600 VAC | 35 A |
| DPE25 | 18 kA | 600 VAC | 35 A |
| DPE32 | 18 kA | 600 VAC | 60 A |
| DPE38 | 18 kA | 600 VAC | 60 A |
| DPE40 | 18 kA | 600 VAC | 110 A |
| DPE50 | 18 kA | 600 VAC | 110 A |
| DPE65 | 18 kA | 600 VAC | 110 A |

Control Circuit Characteristics, AC Supply

| Contactor Type | | | | DPE 09...25 | DPE 32 and 38 | DPE 40...65 |
|---|------------------------------|---------------|---------------|--|---------------|-------------|
| Rated voltage of control circuit (Uc) | 50/60 Hz | | V | 24...240 | 24...240 | 24...240 |
| Control voltage limits | Coils 50/60 Hz | Operation | | 0.8...1.1 Uc at 50 Hz and 0.85...1.1 Uc at 60 Hz and at 140°F (60°C) | | |
| | | Drop-out | | 0.3...0.6 Uc at 140°F (60°C) | | |
| Average consumption at 68°F (20°C) and at Uc | ~ 50 Hz | Inrush | Cos φ | 0.75 | 0.75 | 0.75 |
| | | | 50/60 Hz coil | VA | 70 | 70 |
| | | Sealed | Cos φ | 0.3 | 0.3 | 0.3 |
| | 50/60 Hz coil | | VA | 7 | 7 | 7 |
| | ~ 60 Hz | | Inrush | Cos φ | 0.75 | 0.75 |
| | | 50/60 Hz coil | | VA | 70 | 70 |
| Sealed | | Cos φ | 0.3 | 0.3 | 0.3 | |
| | | 50/60 Hz coil | VA | 7.5 | 7.5 | 7.5 |
| Heat dissipation | 50/60 Hz | | W | 2...3 | 2...3 | 4...5 |
| Operating time (1) | | Closing "C" | ms | 12...22 | 12...22 | 12...26 |
| | | Opening "O" | ms | 4...19 | 4...19 | 4...19 |
| Mechanical durability in millions of operating cycles | 50 or 60 Hz coils | | | - | - | - |
| | 50/60 Hz coil at 60 Hz | | | 10 | 10 | 5 |
| Maximum operating rate at ambient temperature ≤ 140°F (60°C) | In operating cycles per hour | | | 3600 | 3600 | 3600 |

(1) The closing time "C" is measured from the moment the coil supply is switched on to initial contact of the main poles.

(2) The opening time "O" is measured from the moment the coil supply is switched off to the moment the main poles separate.

Control Circuit Characteristics, DC Supply

| Contactor Type | | | | DPE 09...25 | DPE 32 and 38 | DPE 40...65 |
|---|---------------------------------|--|-----------|--|---------------|------------------------------|
| Rated control circuit voltage (Uc) | | | V | 24 | 24 | 24 |
| Rated insulation voltage | Conforming to IEC 60947-1 | | V | 690 | | |
| | Conforming to UL, CSA | | V | 600 | | |
| Control voltage limits | Operation | | | 0.7 ... 1.25 Uc at 140°F (60°C) | | 1...1.1 Uc at 140°F (60°C) |
| | Drop-out | | | 0.1 ... 0.25 Uc at 140°F (60°C) | | 0.3...0.6 Uc at 140°F (60°C) |
| Average consumption at 68°F (20°C) and at Uc | Inrush | | W | 5.4 | 5.4 | 5.4 |
| | Sealed | | W | 5.4 | 5.4 | 5.4 |
| Operating time | Closing "C" | | ms | 63±15% | 63±15% | 50±15% |
| | Opening "O" | | ms | 63±15% | 63±15% | 20±20% |
| | | | | Note: The arcing time depends on the circuit switched by the poles. For all normal 3-phase applications, the arcing time is less than 10ms. The load is isolated from the supply after a time equal to the sum of the opening time and the arcing time | | |
| Time constant (L/R) | Closing "C" | | ms | 28 | 28 | 34 |
| Mechanical durability at Uc | In millions of operating cycles | | | 30 | 30 | 10 |
| Maximum operating rate at ambient temperature ≤ 140°F (60°C) | In operating cycles per hour | | | 3600 | 3600 | 3600 |

Characteristics of Auxiliary Contacts Incorporated in the Contactor

| | | |
|--|--|--------------------------------|
| Rated operational voltage (Ue) Up to | V | 690 |
| Rated insulation voltage (Ui) | Conforming to IEC 60947-1 | V 690 |
| | Conforming to UL, CSA | V 600 |
| Conventional thermal current (Ith) | For ambient temperature ≤ 140°F (60°C) | A 10 |
| Frequency of the operational current | Hz | 25...400 |
| Minimum switching capacity $\lambda = 10^{-8}$ | U min | V 17 |
| | I min | mA 5 |
| Short-circuit protection | Conforming to IEC 60947-5-1 | gG fuse: 10 A |
| Rated making capacity | Conforming to IEC 60947-5-1, I rms | A \sim : 140, \equiv : 250 |
| Short-time rating | Permissible for 1 s | A 100 |
| | 500 ms | A 120 |
| | 100 ms | A 140 |
| Insulation resistance | | MΩ > 10 |

Rated Operational Power of Auxiliary Contacts (Conforming to IEC 60947-5-1)

AC Supply, Categories AC-14 and AC-15

Electrical durability (valid for up to 3600 operating cycles/hour) on an inductive load such as the coil of an electromagnet: making power ($\cos \varphi 0.7$) = 10 times the power broken ($\cos \varphi 0.4$).

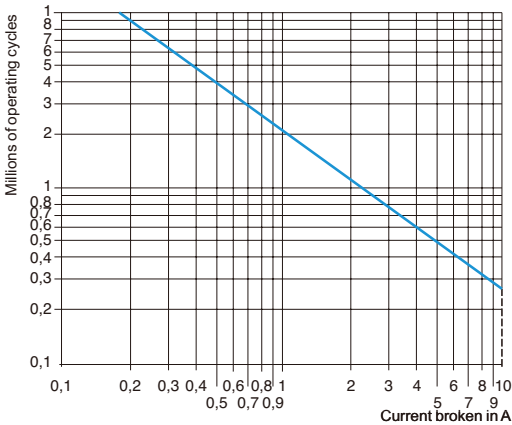
| | V | 24 | 48 | 115 | 230 | 400 | 440 | 600 |
|-----------------------------|----|----|-----|-----|-----|-----|------|------|
| 1 million operating cycles | VA | 60 | 120 | 280 | 560 | 960 | 1050 | 1440 |
| 3 million operating cycles | VA | 16 | 32 | 80 | 160 | 280 | 300 | 420 |
| 10 million operating cycles | VA | 4 | 8 | 20 | 40 | 70 | 80 | 100 |

DC Supply, Category DC-13

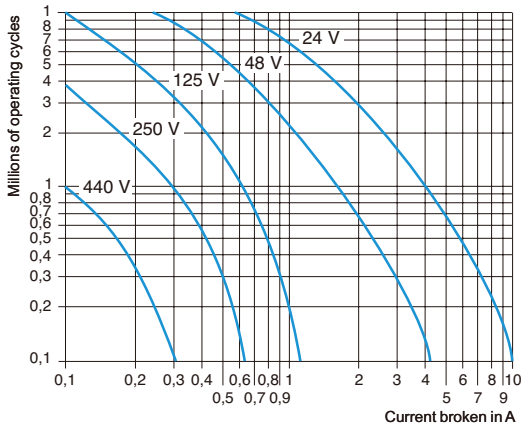
Electrical durability (valid for up to 1200 operating cycles/hour) on an inductive load such as the coil of an electromagnet, without economy resistor, the time constant increasing with the power.

| | V | 24 | 48 | 125 | 250 | 440 |
|----|----|----|----|-----|-----|-----|
| VA | 96 | 76 | 76 | 76 | 44 | - |
| VA | 48 | 38 | 38 | 32 | - | - |
| VA | 14 | 12 | 12 | - | - | - |

AC-15

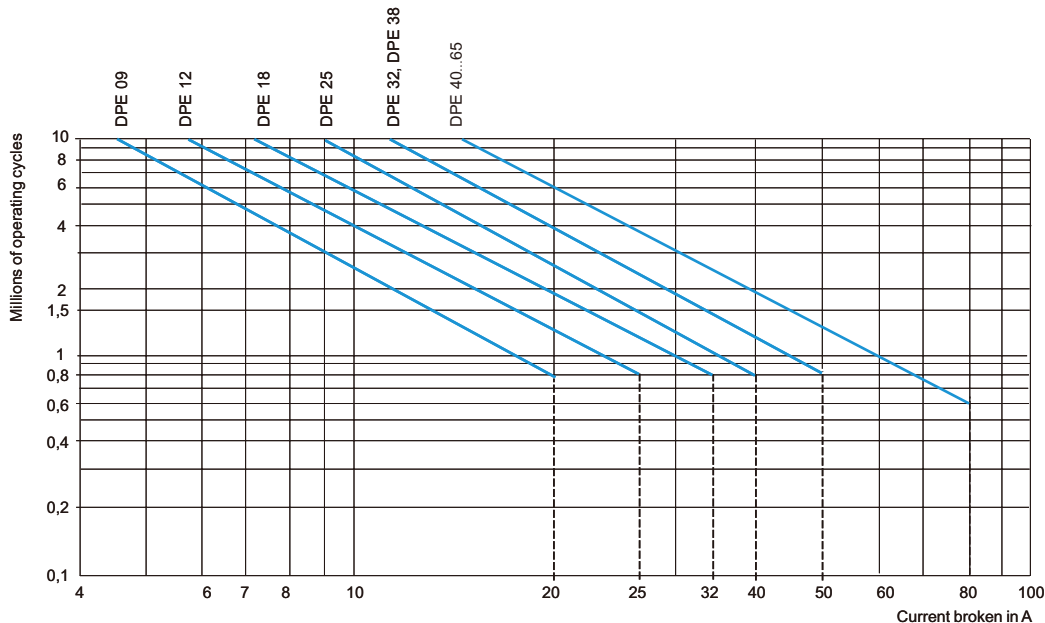


DC-13



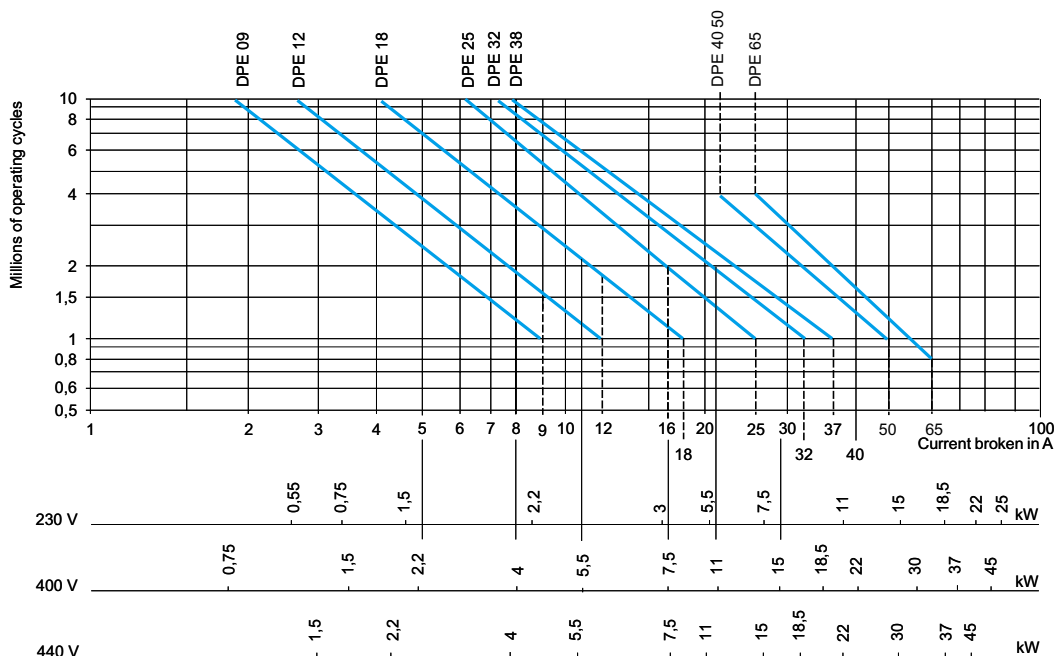
| Environment Characteristics | | | |
|--|---|---|---------------------------------------|
| For Use in Normal Operating Environments | | | |
| Type of Contact Block | | DPEAN | |
| Conforming to standards | | IEC 60947-5-1, NF C 63-140, EN 60947-5-1, UL 60947-5-1 and CSA C22.2 No.60947-5-1 | |
| Product certifications | | UL, CSA | |
| Protective treatment | Conforming to IEC 60068 | "TH" | |
| Degree of protection | Conforming to VDE 0106 | Protection against direct finger contact IP 2X | |
| Ambient air temperature around the device | Storage | °F | -76...176 (-60...80°C) |
| | Operation | °F | 23...140 (-5...60°C) |
| | Permissible for operation at U _c | °F | -40...158 (-40...70°C) |
| Maximum operating altitude | Without derating | ft | 6561.68 (2000 m) |
| Connection by cable | Philips n ^o 2 and Ø 0.236 (6 mm) Flexible or rigid cable with or without cable end | mm ² | Min: 1 x 1, max: 2 x 2.5 |
| Characteristics of Instantaneous Contacts | | | |
| Type of Contact Block | | DPEAN | |
| Number of contacts | | 2 | |
| Rated operational voltage (U_e) Up to | | V | 690 |
| Rated insulation voltage (U_i) | Conforming to IEC 60947-5-1 | V | 690 |
| | Conforming to UL, CSA | V | 600 |
| Conventional thermal current (I_{th}) | For ambient temperature ≤ 140°F (60°C) | A | 10 |
| Frequency of the operational current | | Hz | 25...400 |
| Minimum switching capacity | U min | V | 17 |
| | I min | mA | 5 |
| Short-circuit protection | Conforming to IEC 60947-5-1 and VDE 0660 | gG | fuse: 10 A |
| Rated making capacity | Conforming to IEC 60947-5-1, I _{rms} | A | a : 140, c : 250 |
| Short-time rating | Permissible for | 1 s | A 100 |
| | | 500 ms | A 120 |
| | | 100 ms | A 140 |
| Insulation resistance | | mΩ | > 10 |
| Mechanical durability | | | In millions of operating cycles 30 |

Use in Category AC-1 ($U_e \leq 440\text{ V}$)



Control of resistive circuits ($\cos \varphi \geq 0.95$).
 The current broken (I_c) in category AC-1 is equal to the current (I_e) normally drawn by the load.
Example:
 $U_e = 400\text{ V}$ - $I_e = 25\text{ A}$ - $\theta \leq 104^\circ\text{F}$ (40°C) - $I_c = 25\text{ A}$
 1.5 million operating cycles required
 The above selection curves show the contactor rating needed: DPE 25

Use in Category AC-3 ($U_e \leq 440\text{ V}$)

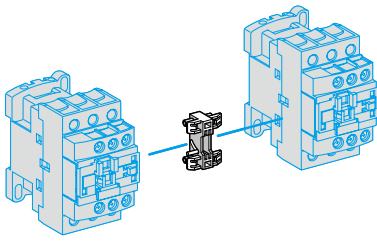


Control of 3-phase asynchronous squirrel cage motors with breaking whilst running. The current broken (I_c) in category AC-3 is equal to the rated operational current of the motor.

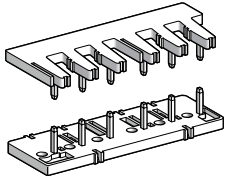
Example:
 Asynchronous motor with $P = 5.5\text{ kW}$ - $U_e = 400\text{ V}$ - $I_e = 11\text{ A}$ - $I_c = I_e = 11\text{ A}$
 or asynchronous motor with $P = 5.5\text{ kW}$ - $U_e = 415\text{ V}$ - $I_e = 11\text{ A}$ - $I_c = I_e = 11\text{ A}$
 2 million operating cycles required
 The above selection curves show the contactor rating needed: DPE 18

Easy TeSys Contactors

Accessories



+



LAD 9R1

For 3-pole Reversing Contactors for Motor Control (1)

| Description | Reference | Weight Lb |
|---|---------------|------------------|
| Kit comprising: | LAD9R1 | 0.099 (0.045 kg) |
| ■ 1 mechanical interlock without electrical interlocking. | | |
| ■ 1 set of power connections. | | |

Instantaneous Auxiliary Contact Blocks for Connection by Screw Clamp Terminals

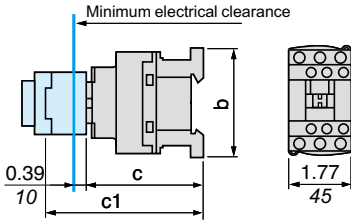
| Description | Number of Contacts per Block | NO | NC | Reference | Weight Lb |
|--|------------------------------------|----|----|----------------|------------------|
| Contact blocks (clip-on front mounting) | 2 | 1 | 1 | DPEAN11 | 0.066 (0.030 kg) |

(1) Horizontally mounted, assembled by the customer using 2 identical contactors.

Dimensions

DPE 09...25

in.
mm

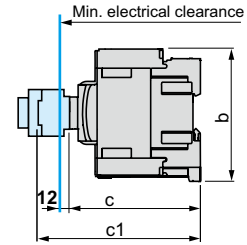
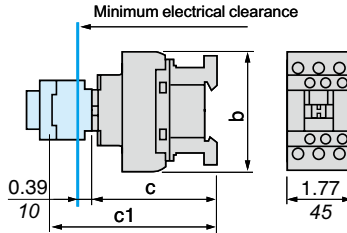


| | DPE 09...25 |
|----------------------------|------------------|
| b | 3.03 in (77 mm) |
| c without add-on block | 3.31 in (84 mm) |
| c1 with DPEAN (2 contacts) | 4.61 in (117 mm) |

DPE 32 and 38, DPE 40...65

DPE 32 and 38

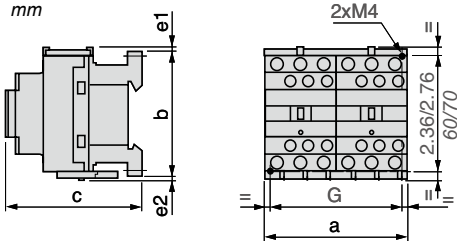
DPE 40...65



| | DPE 32 and 38 | DPE 40...65 |
|----------------------------|------------------|------------------|
| b without add-on block | 3.35 in (85 mm) | 4.80 in (122 mm) |
| c without add-on block | 3.54 in (90 mm) | 4.65 in (118 mm) |
| c1 with DPEAN (2 contacts) | 4.84 in (123 mm) | 5.91 in (150 mm) |

Reversing Contactors DPE 09...38

in.
mm

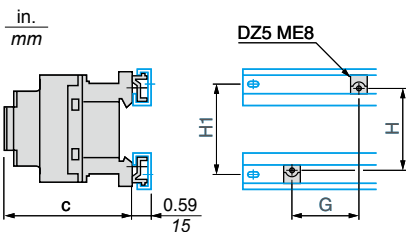


| | DPE 09...25 | DPE 32 and 38 |
|----|------------------|-----------------|
| a | 3.54 in (90 mm) | 3.54 in (90 mm) |
| b | 3.03 in (77 mm) | 3.35 in (85 mm) |
| c | 3.39 in (86 mm) | 3.62 in (92 mm) |
| e1 | 0.16 in (4 mm) | 0.35 in (9 mm) |
| e2 | 0.06 in (1.5 mm) | 0.20 in (5 mm) |
| G | 3.15 in (80 mm) | 3.15 in (80 mm) |

Mounting

DPE 09...25

on 2 mounting rails



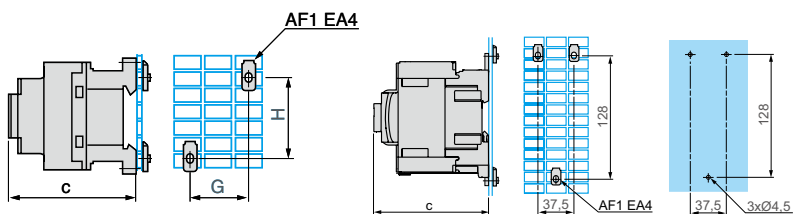
| | DPE 09...25 | DPE 32 and 38 |
|----|-----------------|-----------------|
| c | 3.39 in (86 mm) | 3.62 in (92 mm) |
| G | 1.38 in (35 mm) | 1.38 in (35 mm) |
| H | 2.36 in (60 mm) | 2.36 in (60 mm) |
| H1 | 2.76 in (70 mm) | 2.76 in (70 mm) |

DPE 32 and 38, DPE 40...65

On pre-slotted mounting plate

DPE32 and 38

DPE 40...65

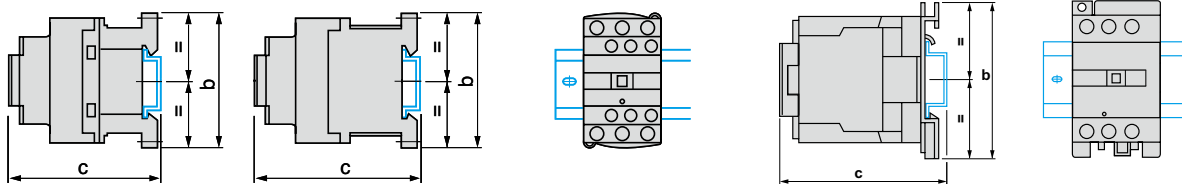


| | DPE 09...25 | DPE 32 and 38 | DPE 40...65 |
|---|-----------------|-----------------|------------------|
| c | 3.39 in (86 mm) | 3.62 in (92 mm) | 4.72 in (120 mm) |
| G | 1.38 in (35 mm) | 1.38 in (35 mm) | |
| H | 2.36 in (60 mm) | 2.36 in (60 mm) | |

Mounting

DPE 09...65 on Mounting Rail AM1 DP200, DR 200 or AM1 DE200 (Width 1.38 in./35 mm)

$\frac{\text{in.}}{\text{mm}}$

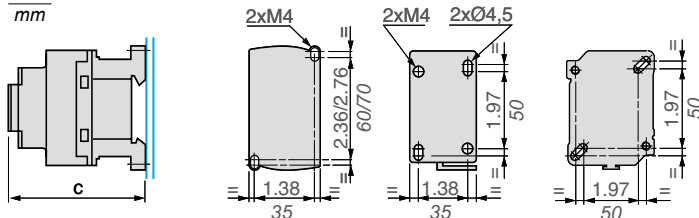


| | DPE 09...25 | DPE 32 and 38 |
|------------------------|-----------------|------------------|
| b | 3.03 in (77 mm) | 3.35 in (85 mm) |
| c (AM1-DP200 or DR200) | 3.46 in (88 mm) | 3.70 in (94 mm) |
| c (AM1-DE200) | 3.78 in (96 mm) | 4.02 in (102 mm) |

| | DPE 40...65 |
|---|------------------|
| b | 4.80 in (122 mm) |
| c | 5.04 in (128 mm) |

DPE 09...38 Panel Mounted

$\frac{\text{in.}}{\text{mm}}$

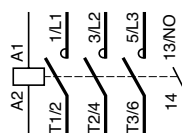


| | DPE 09...25 | DPE 32 and 38 |
|---|-----------------|-----------------|
| c | 3.39 in (86 mm) | 3.62 in (92 mm) |

Schemes

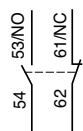
3-pole Contactors

DPE 09...38



Front Mounted Add-on Contact Blocks. Instantaneous Auxiliary Contacts

1 N/O + 1 N/C
DPEAN11





Presentation

Easy TeSys thermal overload relays are designed to protect AC circuits and motors against:

- overloads
- phase failure
- long starting time
- prolonged stalled rotor condition.

The thermal relay permanently controls the current driven by the motor. When this current exceeds the setting, its auxiliary contacts will change state, causing the motor to stop.

Description

- 1 Adjustment dial Ir
- 2 Test button
Operation of the Test button allows:
 - checking of control circuit wiring
 - simulation of relay tripping (actuates both the N/O and N/C contacts)
- 3 Stop button. Actuates the N/C contact; does not affect the N/O contact
- 4 Reset button
- 5 Trip indicator
- 6 Setting locked by sealing the cover
- 7 Selector for manual or automatic reset

Easy TeSys overload relays are supplied with the selector in the manual position, protected by a cover.

Deliberate action is required to move it to the automatic position.

Easy TeSys Thermal Overload Relays

3-pole thermal overload relays

Direct connection to Easy TeSys contactors



Differential Thermal Overload Relays for Use with Fuses or Circuit Breakers

- Compensated relays with manual or automatic reset
- with relay trip indicator
- for AC

| Relay Setting Range (A) | Fuses to Be Used with Selected Relay | | For Use with Contactor | Reference | Weight Lb |
|--|--------------------------------------|--------|------------------------|----------------|------------------|
| | aM (A) | gG (A) | | | |
| Class 10 ⁽¹⁾ for Connection by Screw Clamp Terminals | | | | | |
| 0.10...0.16 | 0.25 | 2 | DPE09...32 | DPER01 | 0.287 (0.13 kg) |
| 0.16...0.25 | 0.5 | 2 | DPE09...32 | DPER02 | 0.287 (0.13 kg) |
| 0.25...0.40 | 1 | 2 | DPE09...32 | DPER03 | 0.287 (0.13 kg) |
| 0.40...0.63 | 1 | 2 | DPE09...32 | DPER04 | 0.287 (0.13 kg) |
| 0.63...1 | 2 | 4 | DPE09...32 | DPER05 | 0.287 (0.13 kg) |
| 1...1.6 | 2 | 4 | DPE09...32 | DPER06 | 0.287 (0.13 kg) |
| 1.6...2.5 | 4 | 6 | DPE09...32 | DPER07 | 0.287 (0.13 kg) |
| 2.5...4 | 6 | 10 | DPE09...32 | DPER08 | 0.287 (0.13 kg) |
| 4...6 | 8 | 16 | DPE09...32 | DPER10 | 0.287 (0.13 kg) |
| 5.5...8 | 12 | 20 | DPE09...32 | DPER12 | 0.287 (0.13 kg) |
| 7...10 | 12 | 20 | DPE09...32 | DPER14 | 0.287 (0.13 kg) |
| 9...13 | 16 | 25 | DPE12...32 | DPER16 | 0.287 (0.13 kg) |
| 12...18 | 20 | 35 | DPE18...32 | DPER21 | 0.287 (0.13 kg) |
| 16...24 | 25 | 50 | DPE25...32 | DPER22 | 0.287 (0.13 kg) |
| 23...32 | 40 | 63 | DPE25...32 | DPER32 | 0.287 (0.13 kg) |
| 23...32 | 40 | 63 | DPE40...65 | DPER332 | 0.827 (0.375 kg) |
| 30...40 | 40 | 80 | DPE40...65 | DPER340 | 0.827 (0.375 kg) |
| 37...50 | 63 | 100 | DPE40...65 | DPER350 | 0.827 (0.375 kg) |
| 48...65 | 63 | 100 | DPE40...65 | DPER365 | 0.827 (0.375 kg) |

⁽¹⁾ Standard UL 60947-4-1 specifies a tripping time for 7.2 times the setting current I_R : class 10: between 4 and 10 seconds.

| Power Circuit Characteristics | | | | | |
|--|--|---|--|------------------------|---|
| Relay Type | Ref. | DPER 01...21 | DPER 22...32 | DPER 332...365 | |
| | Size | 1 | | 3 | |
| Tripping class | Conforming to IEC 60947-4-1 | 10 | | | |
| Rated insulation voltage | Conforming to IEC 60947-4-1 | 690 | | | |
| Rated impulse withstand voltage (Uimp) | | 6 | | | |
| Frequency limits | Of the operating current | 50...60 | | | |
| Setting range | Depending on model | 0.1...18 | 16...38 | 23...65 | |
| Power Circuit Connections | | | | | |
| Connection by Screw Clamp Terminals | | Minimum/maximum c.s.a. | | | |
| | Flexible cable without cable end 1 conductor | mm ² | 1.5...6 AWG 16...10 | 2.5...10 AWG 14...8 | 2.5...25 AWG 14...4 |
| | Flexible cable with cable end 1 conductor | | 1...4 AWG 18...10 | 1.5...6 AWG 16...10 | 2.5...25 AWG 14...4 |
| | Solid cable without cable end 1 conductor | | 1...6 AWG 18...10 | 2.5...10 AWG 14...8 | 2.5...25 AWG 14...4 |
| | Tightening torque | Lbf.in | 15.05 (1.7 N.m) | 22.13 (2.5 N.m) | 45 (5 N.m) 2.5-16 mm ² 62 (7 N.m) 16-25 mm ² |
| Auxiliary Contact Characteristics | | | | | |
| Conventional thermal current | | A | 5 | | |
| Max. sealed consumption of the operating coils of controlled contactors (Occasional operating cycles of contact 95-96) | AC supply (AC-15) | V | 110 | 120 | 240 |
| | | A | 3.27 | 3 | 1.5 |
| | DC supply (DC-13) | V | 24 | | |
| | | A | 1.10 | | |
| Protection against short-circuits | By gG, maximum rating or by GB2 | A | 4 | | |
| Connection by screw clamp terminals | | mm ² | Minimum/maximum c.s.a. | | Minimum/maximum c.s.a. |
| | Flexible cable without cable end 1 conductor | | 2 x 1...2.5 AWG 2 x 18...10 | | 2 x 1...2.5 AWG 2 x 18...14 |
| | Flexible cable with cable end 1 conductor | | 2 x 1...2.5 AWG 2 x 18...10 | | 2 x 1...2.5 AWG 2 x 18...14 |
| | Solid cable without cable end 1 conductor | | 2 x 1...2.5 AWG 2 x 18...10 | | 2 x 1...2.5 AWG 2 x 18...14 |
| | Tightening torque | Lbf.in | 15.05 (1.7 N.m) | | 15.05 (1.7 N.m) |
| Environment | | | | | |
| Conforming to standard | | IEC 60947-4-1, IEC 60947-5-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1 | | | |
| Product certifications | | cUL, UL Listed | | | |
| Degree of protection | Conforming to IEC 60529 | IP2X | | | |
| Protective treatment | Conforming to IEC 60068 | "TH" | | | |
| Ambient air temperature | Storage | °F | -76...176 (-60...80°C) | -60...70 | |
| | Normal operation without derating (IEC 60947-4-1) | | -4...140 (-20...+60°C) | | |
| | Minimum/maximum operating temperature (with derating) ⁽¹⁾ | | -4...158 (-20...70°C) | | |
| Operating positions without derating | In relation to normal vertical mounting plane | Any position | | | |
| Flame resistance | Conforming to IEC 60068-2-1 | °F | 1562 (850°C) | | |
| Shock resistance | Permissive acceleration conforming to IEC 60068-2-7 | | 6 gn - 11 ms | 15 gn - 11 ms | |
| Vibration resistance | Permissive acceleration conforming to IEC 60068-2-6 | | 3 gn | 4 gn | |
| Dielectric strength at 50 Hz | Conforming to IEC 60255-5 | kV | 6 | 1.89 | |
| Surge withstand | Conforming to IEC 60801-5 | | 6 | 6 | |
| Operating Characteristics | | | | | |
| Temperature compensation | | °F | -4...140 (-20...+60°C) | | |
| Tripping threshold | Conforming to IEC 60947-4-1 | A | 1.14 ± 0.06 I _r | | |
| Sensitivity to phase failure | Conforming to IEC 60947-4-1 | | Tripping current 130 % of I _r on two phase, the last one at 0 | | |

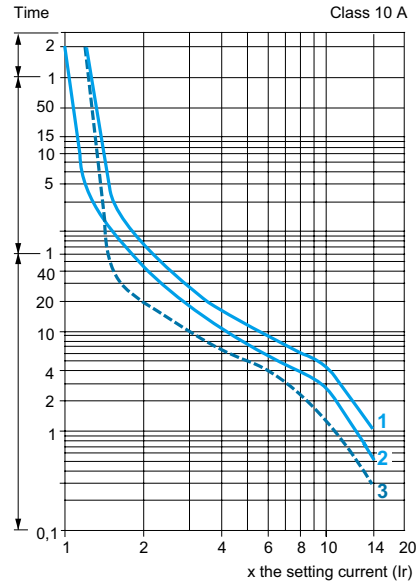
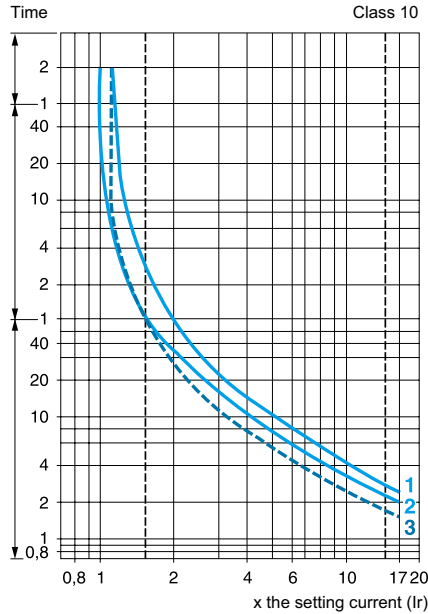
(1) Contact your regional sales.

Tripping Curves

Average Operating Time Related to Multiples of the Setting Current

DPER01...32

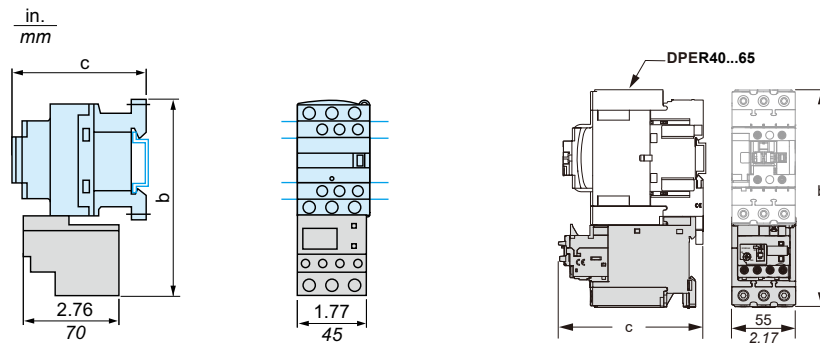
DPER332...365



- 1 Balanced operation, 3-phase, without prior current flow (cold state)
- 2 2-phase operation, without prior current flow (cold state)
- 3 Balanced operation, 3-phase, after a long period at the set current (hot state)

DPER01...32

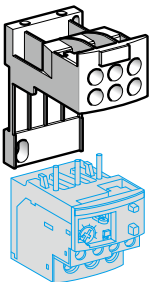
Direct Mounting Under DPE Contactors with Screw Clamp Connections



| | DPER01...18 | DPER25...35 | DPER332...365 |
|---|------------------|------------------|------------------|
| b | 4.84 in (123 mm) | 5.39 in (137 mm) | 7.28 in (185 mm) |
| c | 3.39 in (86 mm) | 3.62 in (92 mm) | 4.84 in (123 mm) |

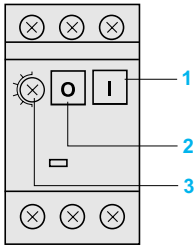
Panel Mount Accessory

| Description | For Use with | Sold in Lots of | Unit Reference |
|----------------|--------------|-----------------|----------------|
| Terminal block | DPER01...32 | 1 | LAD7B106 |



LAD7B106

Presentation



GP2E

Easy TeSys includes 3-pole thermal-magnetic circuit breakers conforming to IEC 60947-2 and IEC 60947-4-1.

These devices also conform to UL 60947-4-1 as manual motor controllers and are suitable for the motor disconnect.

Easy TeSys manual motor controllers are designed to control and protect motors.

Connection

These circuit breakers are designed for connection by screw clamp terminals. This technique ensures secure, permanent and durable clamping that is resistant to harsh environments, vibration and impact and is even more effective when conductors without cable ends are used. Each connection can take two independent conductors.

Push button control

Energisation is controlled manually by operating the Start button "I" 1. De-energisation is controlled manually by operating the Stop button "O" 2, or automatically by the thermal-magnetic protection elements or by a voltage trip attachment.

Protection of motors

Motor protection is provided by the thermal-magnetic protection elements incorporated in the motor circuit breaker.

As per IEC 60947-4-1 the magnetic elements (short-circuit protection) have a non-adjustable tripping threshold, which is equal to about 13 times the maximum setting current of the thermal trips.

The thermal elements (overload protection) include automatic compensation for ambient temperature variations.

The rated operational current of the motor is displayed by means of a graduated knob 3.

All live parts are protected against direct finger contact.

Easy TeSys manual motor controllers are easily mounted on din rail or directly to the panel.

Manual Motor Controllers

Push Button Control

| Standard Power Ratings of 3-phase Motors 50/60 Hz in Category AC-3 | Setting Range of Thermal Trips | | | | | Magnetic Tripping Current Id ± 20 % | Reference | Weight |
|--|--------------------------------|-------|-------|-------|-------------|-------------------------------------|-----------|------------------|
| | 230 V | 400 V | 440 V | 500 V | 690 V | | | |
| kW | kW | kW | kW | kW | A | A | Lb | |
| – | – | – | – | – | 0.1...0.16 | 1.5 | GP2E01 | 0.573 (0.260 kg) |
| – | – | – | – | – | 0.16...0.25 | 2.4 | GP2E02 | 0.573 (0.260 kg) |
| – | – | – | – | – | 0.25...0.40 | 5 | GP2E03 | 0.573 (0.260 kg) |
| – | – | – | – | 0.37 | 0.40...0.63 | 8 | GP2E04 | 0.573 (0.260 kg) |
| – | – | – | 0.37 | 0.55 | 0.63...1 | 13 | GP2E05 | 0.573 (0.260 kg) |
| – | 0.37 | 0.55 | 0.75 | 1.1 | 1...1.6 | 22.5 | GP2E06 | 0.573 (0.260 kg) |
| 0.37 | 0.75 | 1.1 | 1.1 | 1.5 | 1.6...2.5 | 33.5 | GP2E07 | 0.573 (0.260 kg) |
| 0.75 | 1.5 | 1.5 | 2.2 | 3 | 2.5...4 | 51 | GP2E08 | 0.573 (0.260 kg) |
| 1.1 | 2.2 | 3 | 3.7 | 4 | 4...6.3 | 78 | GP2E10 | 0.573 (0.260 kg) |
| 2.2 | 4 | 4 | 5.5 | 7.5 | 6...10 | 138 | GP2E14 | 0.573 (0.260 kg) |
| – | 5.5 | 5.5 | 9 | 11 | 9...14 | 170 | GP2E16 | 0.573 (0.260 kg) |
| 4 | 7.5 | 9 | 10 | 15 | 13...18 | 223 | GP2E20 | 0.573 (0.260 kg) |
| 5.5 | 9 | 11 | 11 | 18.5 | 17...23 | 327 | GP2E21 | 0.573 (0.260 kg) |
| 5.5 | 11 | 11 | 15 | 22 | 20...25 | 327 | GP2E22 | 0.573 (0.260 kg) |
| 7.5 | 15 | 15 | 18.5 | 22 | 24...32 | 416 | GP2E32 | 0.573 (0.260 kg) |

Manual Motor Controllers from 3/4 to 20HP/460V, with Screw Clamp Terminals

Push Button Control

| Thermal Setting (A) | Maximum Horsepower Ratings | | | | | | | Group Motor Applications | Reference | |
|---------------------|----------------------------|-------|-------|-------------|-------|-------|-------|--------------------------|-----------|--------|
| | Single-Phase | | | Three-Phase | | | | | | |
| | 115 V | 200 V | 230 V | 115 V | 200 V | 230 V | 460 V | 575 V | | |
| 0.1...0.16 | – | – | – | – | – | – | – | – | 450 | GP2E01 |
| 0.16...0.25 | – | – | – | – | – | – | – | – | 450 | GP2E02 |
| 0.25...0.40 | – | – | – | – | – | – | – | – | 450 | GP2E03 |
| 0.40...0.63 | – | – | – | – | – | – | – | – | 450 | GP2E04 |
| 0.63...1 | – | – | – | – | – | – | – | 1/2 | 450 | GP2E05 |
| 1...1.6 | – | – | 1/10 | – | – | – | 3/4 | 3/4 | 450 | GP2E06 |
| 1.6...2.5 | – | 1/6 | 1/6 | – | 1/2 | 1/2 | 1 | 1.5 | 450 | GP2E07 |
| 2.5...4 | 1/8 | 1/4 | 1/3 | – | 3/4 | 3/4 | 2 | 3 | 450 | GP2E08 |
| 4...6.3 | 1/4 | 1/2 | 1/2 | 3/4 | 1 | 1.5 | 3 | 5 | 450 | GP2E10 |
| 6...10 | 1/2 | 1 | 1.5 | 1 | 2 | 3 | 5 | 7.5 | 450 | GP2E14 |
| 9...14 | 3/4 | 2 | 2 | 2 | 3 | 3 | 10 | 10 | 450 | GP2E16 |
| 13...18 | 1 | 2 | 3 | 2 | 5 | 5 | 10 | 15 | 450 | GP2E20 |
| 17...23 | 1.5 | 3 | 3 | 3 | 5 | 7.5 | 15 | 20 | 450 | GP2E21 |
| 20...25 | 2 | – | – | – | 7.5 | 7.5 | 15 | 20 | 450 | GP2E22 |
| 24...32 | 2 | 5 | 5 | 5 | 7.5 | 10 | 20 | 25 | 450 | GP2E32 |

Protection Components

Easy TeSys manual motor controllers

| North American Short Circuit and Motor Group Ratings | | | | |
|--|----------------|---------------------------------------|--------|--------|
| Model | Overload Range | Maximum RMS Short-Circuit Current, kA | | |
| | | 240 V+ | 480 V+ | 600 V+ |
| GP2E01 | 0.1-0.16 | 35 | 35 | 18 |
| GP2E02 | 0.16-0.25 | 35 | 35 | 18 |
| GP2E03 | 0.25-0.40 | 35 | 35 | 18 |
| GP2E04 | 0.40-0.63 | 35 | 35 | 18 |
| GP2E05 | 0.63-1.0 | 35 | 35 | 18 |
| GP2E06 | 1.0-1.6 | 35 | 35 | 18 |
| GP2E07 | 1.6-2.5 | 35 | 35 | 18 |
| GP2E08 | 2.5-4.0 | 35 | 35 | 18 |
| GP2E10 | 4.0-6.3 | 35 | 35 | 18 |
| GP2E14 | 6-10 | 30 | 30 | 18 |
| GP2E16 | 9-14 | 25 | 25 | 10 |
| GP2E20 | 13-18 | 25 | 25 | 10 |
| GP2E21 | 17-23 | 25 | 10 | 10 |
| GP2E22 | 20-25 | 25 | 10 | 10 |
| GP2E32 | 24-32 | 25 | 10 | 10 |

+ - Nominal System Voltage.

Easy TeSys contactors may be used on the load side of the Easy TeSys Manual Motor Controllers in Group Installations on a circuit with an available short-circuit current no greater than shown in the Table below when protected by fuses or circuit breakers:

| Type | Contactor DPE | Maximum RMS Short-Circuit Current, kA | |
|--------|----------------|---------------------------------------|---------|
| | | 480 VAC | 600 VAC |
| GP2E01 | DPE09 to DPE38 | 22 | 22 |
| GP2E02 | DPE09 to DPE38 | 22 | 22 |
| GP2E03 | DPE09 to DPE38 | 22 | 22 |
| GP2E04 | DPE09 to DPE38 | 22 | 22 |
| GP2E05 | DPE09 to DPE38 | 22 | 22 |
| GP2E06 | DPE09 to DPE38 | 22 | 22 |
| GP2E07 | DPE09 to DPE38 | 22 | 22 |
| GP2E08 | DPE09 to DPE38 | 22 | 22 |
| GP2E10 | DPE09 to DPE38 | 22 | 22 |
| GP2E14 | DPE12 to DPE38 | 22 | 22 |
| GP2E16 | DPE18 to DPE38 | 22 | 10 |
| GP2E20 | DPE18 to DPE38 | 22 | 10 |
| GP2E21 | DPE32 to DPE38 | 10 | 10 |
| GP2E22 | DPE32 to DPE38 | 10 | 10 |

* The above Group Installations may be used with Schneider's GV2Gx45 or GV2Gx54 busbar, and/or GV1-G09 adapter.

| Environment | | | |
|--|-----------------------------------|--|------------------------|
| Circuit Breaker Type | | GP2E | |
| Conforming to standards | | IEC 60947-2, IEC 60947-4-1, UL 60947-4-1, CSA C22.2 No. 60947-4-1 | |
| Product certifications | | cUL, UL Listed | |
| Protective treatment | Conforming to IEC 60068-2-30 | IEC60068-2-30 Test Db, Variant 2 | |
| Degree of protection | | In GV2 MC01 enclosure: IP 41 In GV2 MC02 enclosure: IP 55 | |
| Ambient air temperature | Storage | °F | -40...176 (-40...80°C) |
| | Operation | | -4...140 (-20...60°C) |
| Flame resistance | Conforming to IEC 60695-2-1 | °F | 1760 (960°C) |
| Maximum operating altitude | | ft | 6561.68 (2000 m) |
| Cablings | | Min. | Max. |
| Number of conductors and c.s.a. | Solid cable | mm ² | 2 x 1 2 x 6 |
| | Flexible cable without cable end | mm ² | 2 x 1.5 2 x 6 |
| | Flexible cable with cable end | mm ² | 2 x 1 2 x 4 |
| AWG 75°C CU | | 8-18 | |
| Suitable for isolation | Conforming to IEC 60947-1 § 7-1-6 | Yes | |
| Tightening torque | | Lbf.in | 15.05 (1.7 N.m) |
| Rated operational voltage (U_e) | Conforming to IEC 60947-2 | V | 690 |
| Rated insulation voltage (U_i) | Conforming to IEC 60947-2 | V | 690 |
| Rated operational frequency | Conforming to IEC 60947-2 | Hz | 50/60 |
| Rated impulse withstand voltage (U_{imp}) | Conforming to IEC 60947-2 | kV | 6 |
| Total power dissipated per pole | | W | 2.5 |
| Mechanical durability (C.O.: closing, opening) | | C.O. | 100 000 |
| Electrical durability | For AC-3 duty | C.O. | 100 000 |
| Duty class (maximum operating rate) | | C.O./h | 25 |

| Breaking Capacity | | | | | | | | | | | |
|---------------------------|----------------------|------|------------|-----|----|-----|-----|----|----|-----|----------|
| Circuit Breaker Type | | GP2E | | | | | | | | | |
| | | A | 01 to 06 | 07 | 08 | 10 | 14 | 16 | 20 | 21 | 22 to 32 |
| Rating | | | 0.1 to 1.6 | 2,5 | 4 | 6.3 | 10 | 14 | 18 | 23 | 25 to 32 |
| Breaking capacity | 230/240 V Icu | kA | ★ | ★ | ★ | ★ | ★ | ★ | ★ | 30 | 30 |
| | Ics % ⁽¹⁾ | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | 100 | 100 |
| conforming to IEC 60947-2 | 400/415 V Icu | kA | ★ | ★ | ★ | ★ | ★ | 10 | 10 | 10 | 10 |
| | Ics % ⁽¹⁾ | | ★ | ★ | ★ | ★ | ★ | 50 | 50 | 40 | 40 |
| 440 V | Icu | kA | ★ | ★ | ★ | 30 | 10 | 6 | 6 | 5 | 5 |
| | Ics % ⁽¹⁾ | | ★ | ★ | ★ | 100 | 100 | 50 | 50 | 50 | 50 |
| 500 V | Icu | kA | ★ | ★ | ★ | 30 | 8 | 5 | 5 | 3 | 3 |
| | Ics % ⁽¹⁾ | | ★ | ★ | ★ | 100 | 100 | 75 | 75 | 75 | 75 |
| 690 V | Icu | kA | ★ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Ics % ⁽¹⁾ | | ★ | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |

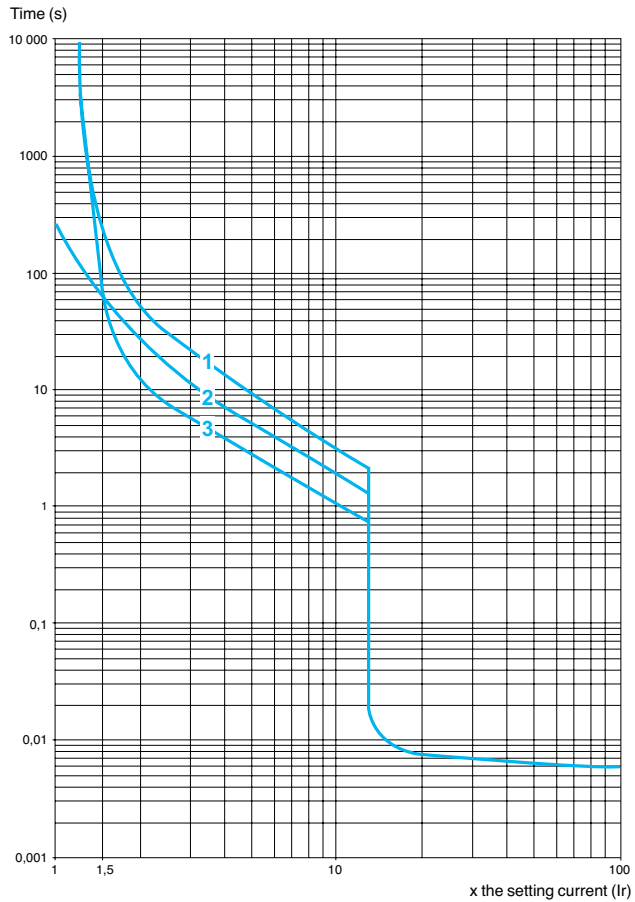
★ > 100 kA
(1) As % of Icu

Protection Components

Easy TeSys manual motor controllers

Tripping Curves

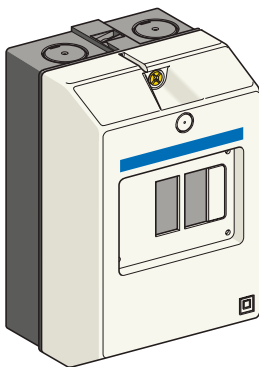
Average Operating Times at 20 °C Related to Multiples of the Setting Current



- 1 3 poles from cold state
- 2 2 poles from cold state
- 3 3 poles from hot state



GPEFC11



GV2MC

Contact Blocks

Instantaneous Auxiliary Contacts

| Mounting | Maximum Number | Type of Contacts | Unit Reference | Weight Lb | Tightening Torque |
|----------|----------------|------------------|----------------|-----------------|-------------------|
| Side | 2 | N/O + N/C | GPEFC11 | 0.11 (0.050 kg) | 1.2 |

Enclosures

| Type | Degree of Protection | Reference | Weight Lb |
|--|----------------------|-----------|------------------|
| Surface mounting, double insulated, with protective sealable cover | IP41 | GV2MC01 | 0.639 (0.290 kg) |
| | IP55 | GV2MC02 | 0.639 (0.290 kg) |

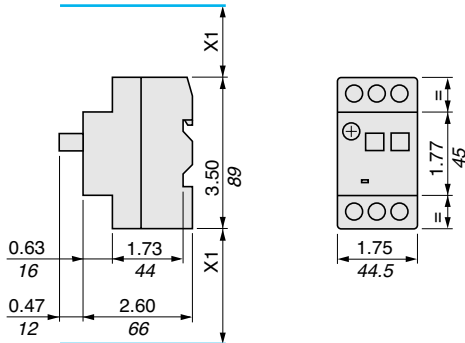
Wiring Accessories

| Description | Application | Pitch in. | Unit Reference |
|-----------------------------|---|-----------------|----------------|
| Sets of 3-pole 63 A busbars | 2 tap-offs | 1.77 (45 mm) | GV2G245 |
| | 3 tap-offs | 1.77 (45 mm) | GV2G345 |
| | 4 tap-offs | 1.77 (45 mm) | GV2G445 |
| Description | Application | Sold in Lots of | Unit Reference |
| Terminal Block | Connection from the top | 1 | GV1G09 |
| Combination Block | Between GP2E and contactor DPE09 to DPE38 | 10 | GV2AF3 |

Dimensions

GP2E

$\frac{\text{in.}}{\text{mm}}$

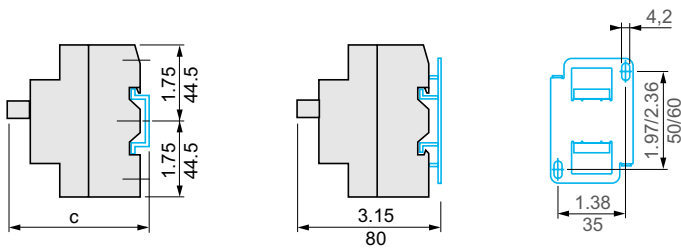


X1: electrical clearance = 1.73 in (40 mm) for $U_e \leq 690$ V

Mounting

GP2E on 1.38 in (35 mm) \leq rail

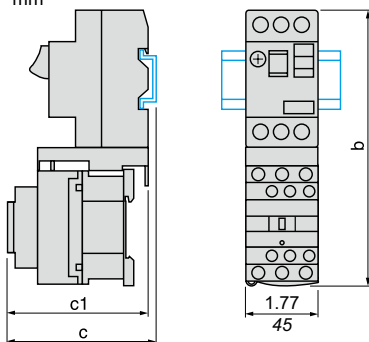
$\frac{\text{in.}}{\text{mm}}$



c = 3.09 in (78.5 mm) on AM1 DP200 (35 x 7.5)
c = 3.39 in (86 mm) on AM1 DE200 and AM1 ED200 (35 x 15)

GV2AF3, Combination GP2E + DPE Contactor

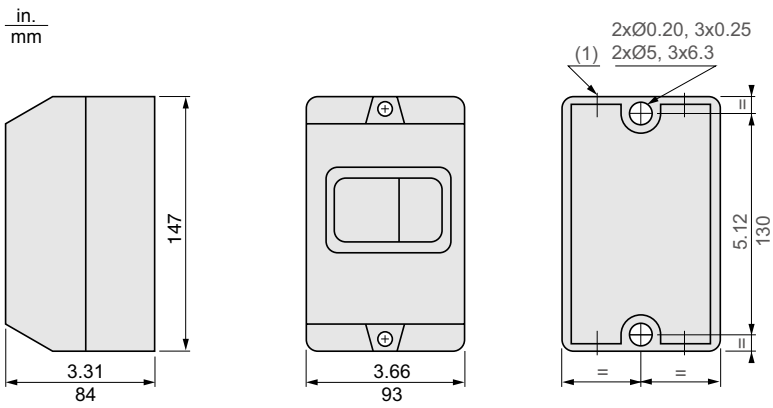
$\frac{\text{in.}}{\text{mm}}$



| GP2E + | DPE09...D18 | DPE25 and D32 |
|--------|--------------------|--------------------|
| b | 6.94 in (176.4 mm) | 7.35 in (186.8 mm) |
| c1 | 3.70 in (94.1 mm) | 3.95 in (100.4 mm) |
| c | 3.92 in (99.6 mm) | 4.17 in (105.9 mm) |

Dimensions

Surface Mounting Enclosure GV2 MC0●



(1) 4 knock-outs for 0.63 in (16 mm) plastic cable gland or 0.63 in (16 mm) conduit



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