

# Product data sheet

Specifications



## IEC contactor, Easy TeSys DPE, nonreversing, 12A, 3P, 5HP at 480V AC, 24V 50/60Hz coil

DPE12B7

### Main

|                                |   |
|--------------------------------|---|
| Range                          | Easy TeSys  |
| Product name                   | Easy TeSys DPE  |
| Product or component type      | Contactors  |
| Device short name              | DPE   |
| Contactors application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-4<br>AC-1<br>AC-3  |
| Poles description              | 3P  |
| Pole contact composition       | 3 NO  |
| Auxiliary contact composition  | 1 NO  |
| [Ie] rated operational current | 12 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit<br>25 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit  |
| [Uc] control circuit voltage   | 24 V AC 50/60 Hz  |
| Motor power kW                 | 3 kW 220...230 V AC 50/60 Hz<br>5.5 kW 380...400 V AC 50/60 Hz<br>5.5 kW 415 V AC 50/60 Hz<br>5.5 kW 440 V AC 50/60 Hz<br>7.5 kW 500 V AC 50/60 Hz<br>7.5 kW 660...690 V AC 50/60 Hz  |
| Motor power hp                 | 0.33 hp 115 V AC 50/60 Hz 1 phase<br>1 hp 230/240 V AC 50/60 Hz 1 phase<br>2 hp 200/208 V AC 50/60 Hz 3 phases<br>2 hp 230/240 V AC 50/60 Hz 3 phases<br>5 hp 460/480 V AC 50/60 Hz 3 phases<br>7.5 hp 575/600 V AC 50/60 Hz 3 phases |

### Complementary

|   |   |
|---|---|
| Maximum Operational Voltage                 | Power circuit <= 690 V AC 25...400 Hz<br>Power circuit <= 300 V DC  |
| [Ith] conventional free air thermal current | 25 A 140 °F (60 °C) power circuit<br>10 A 140 °F (60 °C) signalling circuit   |
| Irms rated making capacity                  | 250 A 440 V power circuit IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1 |
| Rated breaking capacity                     | 250 A 440 V power circuit IEC 60947   |
| Associated fuse rating                      | 10 A gG signalling circuit IEC 60947-5-1<br>25 A gG <= 690 V type 1 power circuit<br>20 A gG <= 690 V type 2 power circuit    |

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|--|--|
| <b>Average impedance</b>               | 2.5 mOhm - lth 25 A 50 Hz power circuit  |
| <b>Power dissipation per pole</b>      | 1.56 W AC-1<br>0.2 W AC-3  |
| <b>Electrical durability</b>           | 0.6 Mcycles 25 A AC-1 <= 440 V<br>1 Mcycles 12 A AC-3 <= 440 V   |
| <b>Safety reliability level</b>        | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1   |
| <b>Control circuit type</b>            | AC 50/60 Hz  |
| <b>Coil technology</b>                 | Without built-in suppressor module   |
| <b>Control circuit voltage limits</b>  | Drop-out 0.3...0.6 Uc 50/60 Hz 158 °F (70 °C))<br>Operational 0.8...1.1 Uc 50 Hz 140 °F (60 °C))<br>Operational 0.85...1.1 Uc 60 Hz 140 °F (60 °C))<br>Operational 1...1.1 Uc 50/60 Hz 158 °F (70 °C))   |
| <b>Inrush power in VA</b>              | 70 VA 60 Hz 0.75 68 °F (20 °C))<br>70 VA 50 Hz 0.75 68 °F (20 °C))   |
| <b>Hold-in power consumption in VA</b> | 7.5 VA 60 Hz 0.3 68 °F (20 °C))<br>7 VA 50 Hz 0.3 68 °F (20 °C))   |
| <b>Heat dissipation</b>                | 2...3 W 50/60 Hz   |
| <b>Operating time</b>                  | 12...22 ms closing<br>4...19 ms opening  |
| <b>Mechanical durability</b>           | 10 Mcycles   |
| <b>Maximum operating rate</b>          | 3600 cyc/h 140 °F (60 °C)  |
| <b>Auxiliary contacts type</b>         | Mechanically linked 1 NO IEC 60947-5-1   |
| <b>Minimum switching current</b>       | 5 mA signalling circuit  |
| <b>Minimum switching voltage</b>       | 17 V signalling circuit  |
| <b>Insulation resistance</b>           | > 10 MOhm signalling circuit   |
| <b>Non-overlap time</b>                | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact  |
| <b>Signalling circuit frequency</b>    | 25...400 Hz  |
| <b>Connections - terminals</b>         | Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end |
| <b>Tightening torque</b>               | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2   |
| <b>Mounting support</b>                | Rail<br>Plate  |
| <b>Height</b>                          | 3.03 in (77 mm)  |
| <b>Width</b>                           | 1.77 in (45 mm)  |
| <b>Depth</b>                           | 3.39 in (86 mm)  |
| <b>Product weight</b>                  | 0.71 lb(US) (0.32 kg)  |
| <b>Environment</b>                     |  |
| <b>[Ui] rated insulation voltage</b>   | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL  |
| <b>Overvoltage category</b>            | III  |

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|--|--|
| Pollution degree                       | 3  |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947   |
| Standards                              | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 60947-4-1  |
| Product certifications                 | UL<br>CSA  |
| IP degree of protection                | IP20 front face IEC 60529  |
| Ambient air temperature for storage    | -76...176 °F (-60...80 °C)   |
| Ambient air temperature for operation  | -40...140 °F (-40...60 °C)   |
| Operating altitude                     | 0...2000 m   |
| Fire resistance                        | 1562 °F (850 °C) IEC 60695-2-1   |
| Mechanical robustness                  | Vibrations contactor open 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz)<br>Shocks contactor open 10 Gn for 11 ms)<br>Shocks contactor closed 15 Gn for 11 ms) |

## Packing Units

|                              |                            |
|------------------------------|----------------------------|
| Unit Type of Package 1       | PCE                        |
| Number of Units in Package 1 | 1                          |
| Package 1 Height             | 2.20 in (5.590 cm)         |
| Package 1 Width              | 3.80 in (9.650 cm)         |
| Package 1 Length             | 4.70 in (11.940 cm)        |
| Package 1 Weight             | 12.70 oz (360.000 g)       |
| Unit Type of Package 2       | S02                        |
| Number of Units in Package 2 | 30                         |
| Package 2 Height             | 5.91 in (15.000 cm)        |
| Package 2 Width              | 11.81 in (30.000 cm)       |
| Package 2 Length             | 15.75 in (40.000 cm)       |
| Package 2 Weight             | 24.38 lb(US) (11.060 kg)   |
| Unit Type of Package 3       | P06                        |
| Number of Units in Package 3 | 480                        |
| Package 3 Height             | 29.53 in (75.000 cm)       |
| Package 3 Width              | 31.50 in (80.000 cm)       |
| Package 3 Length             | 23.62 in (60.000 cm)       |
| Package 3 Weight             | 407.77 lb(US) (184.960 kg) |

## Offer Sustainability

|                          |  |
|--------------------------|--|
| Sustainable offer status | Green Premium product                            |
| REACH Regulation         | <a href="#">REACH Declaration</a>                |
| REACH free of SVHC       | Yes  |
| EU RoHS Directive        | Compliant<br><a href="#">EU RoHS Declaration</a> |
| Toxic heavy metal free   | Yes  |

|                                   |   |
|-----------------------------------|---|
| <b>Mercury free</b>               | Yes   |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope) |
| <b>RoHS exemption information</b> | Yes   |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | <a href="#">End of Life Information</a>   |
| <b>PVC free</b>                   | Yes   |

**Recommended replacement(s)**