



#### General characteristics

|                             |        |           |
|-----------------------------|--------|-----------|
| Rated voltage               | V      | 400       |
| Operating voltage range     |        | 340...440 |
| Rated frequency             | Hz     | 50/60     |
| Operating frequency range   | Hz     | 45...65   |
| Rated current (Ie)          | A      | 72        |
| Step power at               | 400VAC | kvar 50   |
| Peak inverse voltage (PIV)  | VAC    | 1800      |
| Number of controlled phases | Nr.    | 2         |

Control circuit

12-24VDC input  
or free-voltage  
input or via  
RS485 serial port  
(with optional  
card EXC1042 in  
combination with  
controller  
DCRG8F +  
EXP1012)

#### Auxiliary supply

Rated auxiliary supply voltage Us  
AC

|                           |     |     |       |
|---------------------------|-----|-----|-------|
|                           | min | VAC | 100   |
|                           | Max | VAC | 240   |
| Auxiliary rated frequency |     | Hz  | 50/60 |
| Power consumption Max     |     | VA  | 14.1  |
| Power dissipation Max     |     | W   | 5.8   |

#### Control input

|                 |             |
|-----------------|-------------|
| Terminals       | CONTROL +/- |
| Rated voltage   | 12-24VDC    |
| Operating range | 8...30VDC   |

#### Digital inputs

|                                       |          |
|---------------------------------------|----------|
| Terminals                             | C-IN1    |
| Applied voltage at contact (internal) | 5VDC     |
| Input current                         | mA ≤10   |
| Low input signal                      | VDC ≤0.8 |
| High input signal                     | VDC ≥3.2 |
| Input signal delay                    | ms ≥50   |

#### NTC probe input

|                           |                              |
|---------------------------|------------------------------|
| Terminals                 | NTC-NTC                      |
| Sensor type               | NTC (ordering<br>code NTC01) |
| Measuring range           | °C -25...+85                 |
| Maximum connection lenght | mt 3                         |

#### Fan power supply

|                                         |                                                                              |                                                                  |                              |
|-----------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------|
| Terminals                               |                                                                              |                                                                  | FAN +/-                      |
| Supply voltage (internal)               |                                                                              |                                                                  | 5VDC (provided by DCTL)      |
| Fan type                                |                                                                              |                                                                  | 2 built-in fans type EXP8004 |
| Relay outputs                           |                                                                              |                                                                  |                              |
| Number of relay output                  | Nr.                                                                          | 1                                                                |                              |
| Contact arrangement                     | 1 C/O-SPDT                                                                   |                                                                  |                              |
| Rated current                           | NO contact: AC1 5A 250VAC / 5A 30VDC<br>NC contact: AC1 3A 250VAC / 3A 30VDC |                                                                  |                              |
| UL/CSA and IEC/EN 60947-5-1 designation |                                                                              |                                                                  | D300                         |
| Maximum switching voltage               | VAC                                                                          | 250                                                              |                              |
| Electrical life (with rated load)       | cycles                                                                       | NO contact: 10x10 <sup>3</sup><br>NC contact: 20x10 <sup>3</sup> |                              |
| Mechanical life                         | cycles                                                                       | 10 <sup>7</sup>                                                  |                              |
| Insulations                             |                                                                              |                                                                  |                              |
| Rated insulation voltage Ui IEC/EN      | V                                                                            | 480                                                              |                              |
| Rated impulse withstand voltage Uimp    | kV                                                                           | 4                                                                |                              |
| Connections - power terminals           |                                                                              |                                                                  |                              |
| Type of terminal                        | Fixed - double lock clamp                                                    |                                                                  |                              |
| Conductor cross section                 | min                                                                          | mm <sup>2</sup>                                                  | 2 x 2.5                      |
|                                         | Max                                                                          | mm <sup>2</sup>                                                  | 2 x 35                       |
|                                         | min                                                                          | AWG                                                              | 2 x 18                       |
|                                         | Max                                                                          | AWG                                                              | 2 x 2                        |
| Tightening torque (Max)                 |                                                                              | Nm                                                               | 5.5-6.5                      |
|                                         |                                                                              | lbin/lbft                                                        | 4.06-4.79 lbft               |
| Connections - relay output              |                                                                              |                                                                  |                              |
| Type of terminal                        | Screw                                                                        |                                                                  |                              |
| Conductor cross section                 | min                                                                          | mm <sup>2</sup>                                                  | 0.2                          |
|                                         | Max                                                                          | mm <sup>2</sup>                                                  | 4                            |
|                                         | min                                                                          | AWG                                                              | 26                           |
|                                         | Max                                                                          | AWG                                                              | 10                           |
| Tightening torque (Max)                 |                                                                              | Nm                                                               | 0.8                          |
|                                         |                                                                              | lbin                                                             | 7                            |
| Connections - fan and digital input     |                                                                              |                                                                  |                              |
| Type of terminal                        | Screw                                                                        |                                                                  |                              |
| Conductor cross section                 | min                                                                          | mm <sup>2</sup>                                                  | 0.2                          |
|                                         | Max                                                                          | mm <sup>2</sup>                                                  | 2.5                          |
|                                         | min                                                                          | AWG                                                              | 24                           |
|                                         | Max                                                                          | AWG                                                              | 12                           |
| Tightening torque (Max)                 |                                                                              | Nm                                                               | 0.44                         |

lbin 4

## Ambient conditions

### Temperature

#### Operating temperature

|     |    |                                                            |
|-----|----|------------------------------------------------------------|
| min | °C | -20                                                        |
| max | °C | +45°C without<br>derating (up to<br>55°C with<br>derating) |

#### Storage temperature

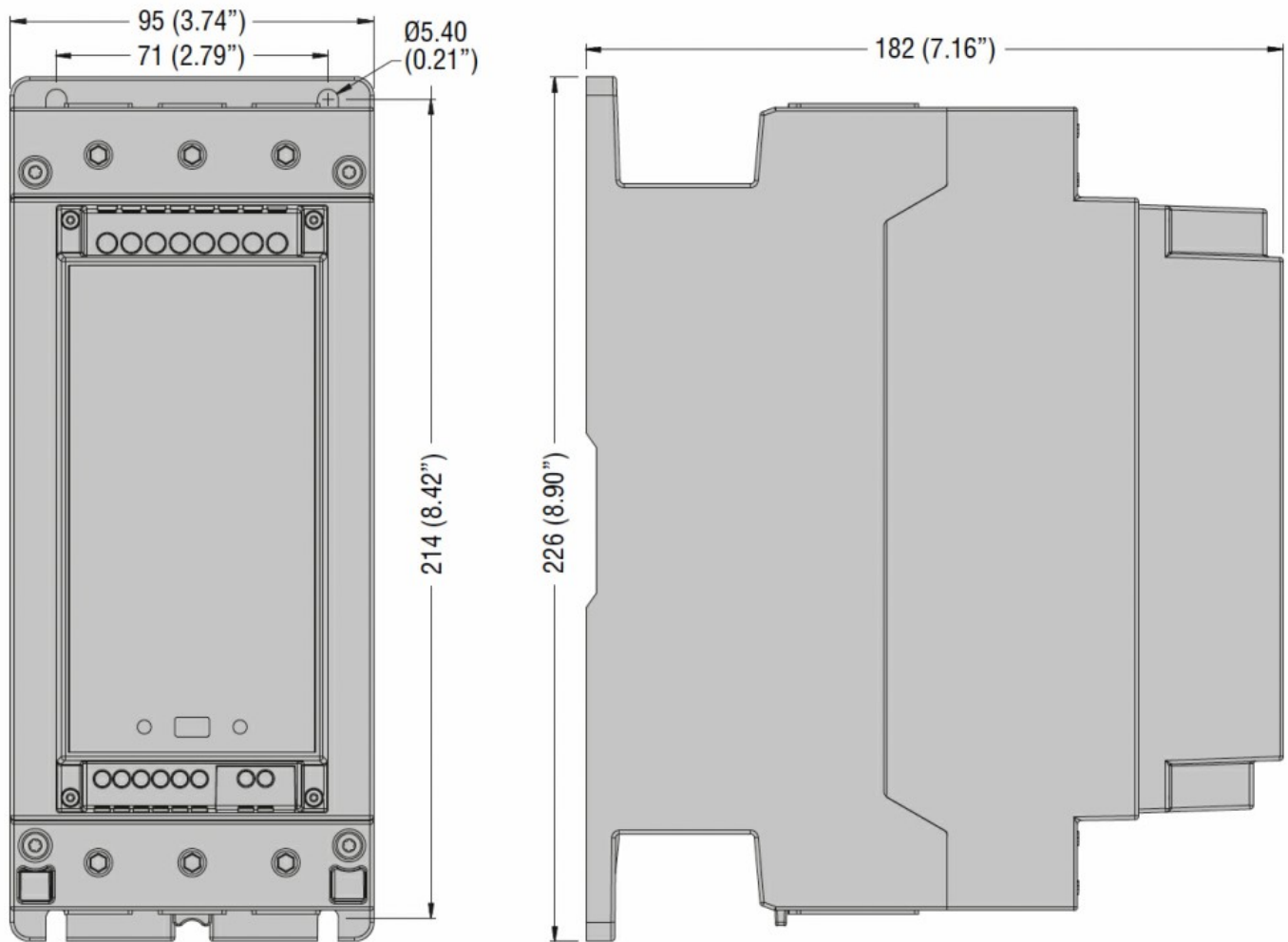
|     |    |     |
|-----|----|-----|
| min | °C | -30 |
| max | °C | +80 |

|                          |   |                               |
|--------------------------|---|-------------------------------|
| Relative humidity        | % | <80%                          |
| Maximum Pollution degree |   | 2                             |
| Overvoltage category     |   | III                           |
| Max altitude             | m | 2000m without<br>derating     |
| Climatic sequence        |   | Z/ABDM (IEC/EN<br>60068-2-61) |
| Shock resistance         |   | 15g (IEC/EN<br>60068-2-27)    |
| Vibration resistance     |   | 0.7g (IEC/EN<br>60068-2-6)    |

## Housing

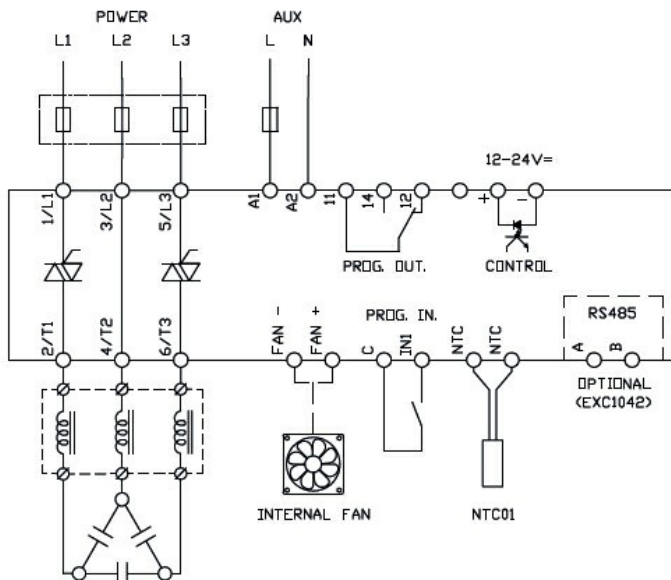
|                        |    |                                                                                        |
|------------------------|----|----------------------------------------------------------------------------------------|
| Execution              |    | Internal panel<br>version                                                              |
| Material               |    | Polycarbonate                                                                          |
| Mounting               |    | Screw fixing or<br>DIN-rail (IEC/EN<br>60715) with<br>optional<br>accessory<br>EXP8003 |
| Degree of protection   |    | IP00                                                                                   |
| Dimensions (W x H x D) | mm | 95 x 226 x 182                                                                         |
| Weight                 | g  | 2840                                                                                   |

## Dimensions



## Wiring diagrams

### DCTL



## Certifications and compliance

### Compliance

IEC/EN 60947-4-3

IEC/EN 61000-6-2

IEC/EN 61000-6-4

Certificates

cULus

ETIM classification

ETIM 8.0  
EC002055 -  
Solid state relay