

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Active QUINT redundancy module for DIN rail mounting with ACB (Auto Current Balancing) Technology and monitoring functions, input: 24 V DC/2x 40 A, output: 24 V DC/1 x 80 A, including mounted UTA 107/30 universal DIN rail adapter

## Product description

The Auto Current Balancing ACB technology of the QUINT ORING modules doubles the service life of redundantly operated power supplies by evenly utilizing the power supply units. The load current is automatically distributed symmetrically.

## Your advantages

- Service life of the redundant solution is doubled, thanks to uniform distribution of the load
- Save energy
- Permanent monitoring of redundancy
- Consistent redundancy up to the load



## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2902879       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | CM18          |
| Product key                          | CMRQ43        |
| GTIN                                 | 4046356698276 |
| Weight per piece (including packing) | 1,253 g       |
| Weight per piece (excluding packing) | 860 g         |
| Customs tariff number                | 85371091      |

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                   |    |
|-------------------|----|
| Country of origin | IN |
|-------------------|----|

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

## Technical data

### Input data

#### DC operation

|                                 |                                                                                           |
|---------------------------------|-------------------------------------------------------------------------------------------|
| Nominal input voltage range     | 24 V DC                                                                                   |
| Input voltage range             | 18 V DC ... 28 V DC (SELV)                                                                |
| Input voltage range DC          | 18 V DC ... 28 V DC (SELV)                                                                |
| Voltage type of supply voltage  | DC                                                                                        |
| Reverse polarity protection     | yes, < 60 V                                                                               |
| Nominal input current ( $I_N$ ) | 2x 40 A (-25 °C ... 60 °C)<br>1x 80 A (-25 °C ... 60 °C)                                  |
| Maximum current $I_{max}$       | 2x 45 A (-25 °C ... 40 °C)<br>1x 90 A (-25 °C ... 40 °C)<br>430 A (12 ms, SFB Technology) |
| Transient surge protection      | Varistor                                                                                  |
| Voltage drop, input/output      | 0.2 V ( $I_{OUT} = 80$ A)                                                                 |

### Output data

|                                                    |                                              |
|----------------------------------------------------|----------------------------------------------|
| Efficiency                                         | > 98 %                                       |
| Nominal output voltage                             | $U_{IN} - 0,2$ V                             |
| Nominal output current ( $I_N$ )                   | 80 A (Increasing power)<br>40 A (Redundancy) |
| Static Boost ( $I_{Stat.Boost}$ )                  | 1x 90 A                                      |
| Selective Fuse Breaking ( $I_{SFB}$ )              | 1x 430 A (12 ms)                             |
| Derating                                           | 60 °C ... 70 °C (2.5 %/K)                    |
| Protection against overvoltage at the output (OVP) | $\leq 32$ V DC                               |
| Power loss nominal load max.                       | 16 W ( $I_{OUT} = 80$ A)                     |
| Connection in series                               | no                                           |

#### Signal: Redundancy OK, 13/14

|                           |                                     |
|---------------------------|-------------------------------------|
| Output description        | Group contact                       |
| Maximum switching voltage | max. 30 V AC/DC                     |
| Maximum inrush current    | $\leq 100$ mA (short-circuit-proof) |

#### Signal: ACB (Auto Current Balancing) OK, 23/24

|                           |                                             |
|---------------------------|---------------------------------------------|
| Output description        | Contact closed: $\Delta U_{IN} \leq 300$ mV |
| Maximum switching voltage | max. 30 V AC/DC                             |
| Maximum inrush current    | $\leq 100$ mA (short-circuit-proof)         |

#### Signal

|                        |                                     |
|------------------------|-------------------------------------|
| Maximum inrush current | $\leq 100$ mA (short-circuit-proof) |
|------------------------|-------------------------------------|

### Connection data

#### Input

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                                       |                     |
|---------------------------------------|---------------------|
| Connection method                     | Screw connection    |
| Conductor cross-section, rigid min.   | 0.5 mm <sup>2</sup> |
| Conductor cross-section, rigid max.   | 16 mm <sup>2</sup>  |
| Conductor cross-section flexible min. | 0.5 mm <sup>2</sup> |
| Conductor cross-section flexible max. | 16 mm <sup>2</sup>  |
| Conductor cross-section AWG min.      | 20                  |
| Conductor cross-section AWG max.      | 6                   |
| Stripping length                      | 10 mm               |
| Screw thread                          | M4                  |
| Tightening torque, min                | 1.2 Nm              |
| Tightening torque max                 | 1.5 Nm              |

## Output

|                                       |                     |
|---------------------------------------|---------------------|
| Connection method                     | Screw connection    |
| Conductor cross-section, rigid min.   | 0.5 mm <sup>2</sup> |
| Conductor cross-section, rigid max.   | 35 mm <sup>2</sup>  |
| Conductor cross-section flexible min. | 0.5 mm <sup>2</sup> |
| Conductor cross-section flexible max. | 35 mm <sup>2</sup>  |
| Conductor cross-section AWG min.      | 20                  |
| Conductor cross-section AWG max.      | 2                   |
| Stripping length                      | 18 mm               |
| Screw thread                          | M5                  |
| Tightening torque, min                | 2.5 Nm              |
| Tightening torque max                 | 4.5 Nm              |

## Signal

|                                       |                     |
|---------------------------------------|---------------------|
| Connection method                     | Screw connection    |
| Conductor cross-section, rigid min.   | 0.2 mm <sup>2</sup> |
| Conductor cross-section, rigid max.   | 6 mm <sup>2</sup>   |
| Conductor cross-section flexible min. | 0.2 mm <sup>2</sup> |
| Conductor cross-section flexible max. | 6 mm <sup>2</sup>   |
| Conductor cross-section AWG min.      | 24                  |
| Conductor cross-section AWG max.      | 10                  |
| Stripping length                      | 8 mm                |
| Screw thread                          | M3                  |
| Tightening torque, min                | 0.5 Nm              |
| Tightening torque max                 | 0.6 Nm              |

## Signal

|                                       |                     |
|---------------------------------------|---------------------|
| Conductor cross-section, rigid min.   | 0.2 mm <sup>2</sup> |
| Conductor cross-section, rigid max.   | 6 mm <sup>2</sup>   |
| Conductor cross-section flexible min. | 0.2 mm <sup>2</sup> |
| Conductor cross-section flexible max. | 4 mm <sup>2</sup>   |
| Conductor cross-section AWG min.      | 24                  |
| Conductor cross-section AWG max.      | 10                  |

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                        |        |
|------------------------|--------|
| Screw thread           | M3     |
| Tightening torque, min | 0.5 Nm |
| Tightening torque max  | 0.6 Nm |

## Signaling

|                    |                                          |
|--------------------|------------------------------------------|
| Types of signaling | Relay contact, floating, current limited |
|--------------------|------------------------------------------|

Signal output: Redundancy OK, 13/14

|                        |                   |
|------------------------|-------------------|
| Status display         | LED redundancy OK |
| Note on status display | green             |

Signal output: ACB (Auto Current Balancing) OK, 23/24

|                        |                     |
|------------------------|---------------------|
| Status display         | ACB OK LED          |
| Note on status display | LED bar graph green |

## Electrical properties

|                                            |                     |
|--------------------------------------------|---------------------|
| Insulation voltage input, output / housing | 500 V AC (710 V DC) |
|--------------------------------------------|---------------------|

## Product properties

|                            |                    |
|----------------------------|--------------------|
| Product type               | Redundancy module  |
| Product family             | QUINT ORING        |
| MTBF (IEC 61709, SN 29500) | > 720000 h (40 °C) |
| LED                        | yes                |

Insulation characteristics

|                     |     |
|---------------------|-----|
| Protection class    | III |
| Degree of pollution | 2   |

## Dimensions

|                  |        |
|------------------|--------|
| Width            | 66 mm  |
| Height           | 130 mm |
| Depth            | 125 mm |
| Horizontal pitch | 3.7 HP |

Installation dimensions

|                                  |               |
|----------------------------------|---------------|
| Installation distance right/left | 5 mm / 5 mm   |
| Installation distance top/bottom | 50 mm / 50 mm |

Alternative assembly

|        |        |
|--------|--------|
| Width  | 122 mm |
| Height | 130 mm |
| Depth  | 69 mm  |

## Mounting

|               |                 |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                   |                                                                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Assembly note     | alignable: $P_N \geq 50\%$ , 5 mm horizontally, 15 mm next to active components, 50 mm vertically<br>alignable: $P_N < 50\%$ , 0 mm horizontally, 40 mm vertically top, 20 mm vertically bottom |
| Mounting position | horizontal DIN rail NS 35, EN 60715                                                                                                                                                             |

## Material specifications

|                  |                                               |
|------------------|-----------------------------------------------|
| Housing material | Metal                                         |
| Type of housing  | Aluminum (AlMg3)                              |
| Hood version     | Galvanized sheet steel, free from chrome (VI) |

## Environmental and real-life conditions

### Ambient conditions

|                                                |                                                                                            |
|------------------------------------------------|--------------------------------------------------------------------------------------------|
| Degree of protection                           | IP20                                                                                       |
| Ambient temperature (operation)                | -25 °C ... 70 °C (> 60 °C Derating: 2,5 %/K)                                               |
| Ambient temperature (storage/transport)        | -40 °C ... 85 °C                                                                           |
| Ambient temperature (start-up type tested)     | -40 °C                                                                                     |
| Maximum altitude                               | 2000 m<br>2000 m                                                                           |
| Climatic class                                 | 3K22 (in accordance with EN 60721-3-3)                                                     |
| Max. permissible relative humidity (operation) | ≤ 95 % (at 25 °C, non-condensing)                                                          |
| Shock                                          | 18 ms, 30g, in each space direction (according to IEC 60068-2-27)                          |
| Vibration (operation)                          | < 15 Hz, amplitude ±2.5 mm (according to IEC 60068-2-6)<br>15 Hz ... 150 Hz, 2.3g, 90 min. |
| Temp code                                      | T4 (-25 ... +70 °C; > 60 °C, Derating: 2,5 %/K)                                            |

## Standards and regulations

|                              |                    |
|------------------------------|--------------------|
| Standard - Electrical safety | IEC 62368-1 (SELV) |
|------------------------------|--------------------|

## Approvals

|                       |                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Shipbuilding approval | DNV, NK                                                                                                                                       |
| UL approvals          | UL/C-UL listed UL 508<br>UL/C-UL Recognized UL 60950-1<br>UL ANSI/ISA-12.12.01 Class I, Division 2, Groups A, B, C, D T4 (Hazardous Location) |

### Conformity/Approvals

|                                  |   |
|----------------------------------|---|
| SIL in accordance with IEC 61508 | 0 |
|----------------------------------|---|

## EMC data

|                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| Electromagnetic compatibility       | Conformance with EMC Directive 2014/30/EU         |
| Low Voltage Directive               | Conformance with Low Voltage Directive 2014/35/EC |
| EMC requirements for noise emission | EN 61000-6-3<br>EN 61000-6-4                      |
| EMC requirements for noise immunity | EN 61000-6-1                                      |

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                            |                                    |
|----------------------------|------------------------------------|
|                            | EN 61000-6-2                       |
| Electrostatic discharge    |                                    |
| Standards/regulations      | EN 61000-4-2                       |
| Electrostatic discharge    |                                    |
| Contact discharge          | 8 kV (Test Level 4)                |
| Discharge in air           | 15 kV (Test Level 4)               |
| Comments                   | Criterion A                        |
| Electromagnetic HF field   |                                    |
| Standards/regulations      | EN 61000-4-3                       |
| Electromagnetic HF field   |                                    |
| Frequency range            | 80 MHz ... 1 GHz                   |
| Test field strength        | 20 V/m (Test Level 3)              |
| Frequency range            | 1 GHz ... 6 GHz                    |
| Test field strength        | 10 V/m (Test Level 3)              |
| Comments                   | Criterion A                        |
| Fast transients (burst)    |                                    |
| Standards/regulations      | EN 61000-4-4                       |
| Fast transients (burst)    |                                    |
| Input                      | 2 kV (Test Level 3 - asymmetrical) |
| Output                     | 2 kV (Test Level 3 - asymmetrical) |
| Signal                     | 2 kV (Test Level 4 - asymmetrical) |
| Comments                   | Criterion A                        |
| Surge voltage load (surge) |                                    |
| Standards/regulations      | EN 61000-4-5                       |
| Surge voltage load (surge) |                                    |
| Input                      | 1 kV (Test Level 3 - symmetrical)  |
|                            | 2 kV (Test Level 3 - asymmetrical) |
| Output                     | 1 kV (Test Level 3 - symmetrical)  |
|                            | 2 kV (Test Level 3 - asymmetrical) |
| Comments                   | Criterion A                        |
| Conducted interference     |                                    |
| Standards/regulations      | EN 61000-4-6                       |
| Conducted interference     |                                    |
| Input/output/signal        | asymmetrical                       |
| Frequency range            | 0.15 MHz ... 80 MHz                |
| Comments                   | Criterion A                        |
| Voltage                    | 10 V (Test Level 3)                |
| Emitted interference       |                                    |

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

|                                                  |                                                                            |
|--------------------------------------------------|----------------------------------------------------------------------------|
| Standards/regulations                            | EN 61000-6-3                                                               |
| Radio interference voltage in acc. with EN 55011 | EN 55011 (EN 55022) Class B, area of application: Industry and residential |
| Emitted radio interference in acc. with EN 55011 | EN 55011 (EN 55022) Class B, area of application: Industry and residential |

## Criteria

|             |                                                                                      |
|-------------|--------------------------------------------------------------------------------------|
| Criterion A | Normal operating behavior within the specified limits.                               |
| Criterion B | Temporary impairment to operational behavior that is corrected by the device itself. |

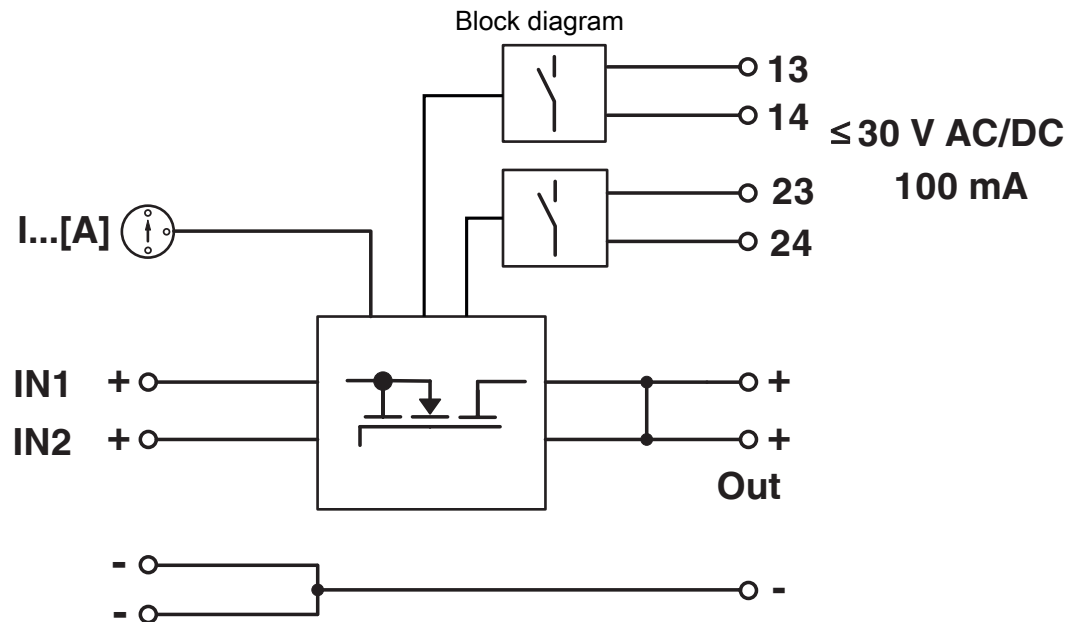
# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

## Drawings



# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2902879>



**cUL Recognized**  
Approval ID: E211944



**UL Recognized**  
Approval ID: E211944



**EAC**  
Approval ID: RU S-DE.BL08.W.00764



**NK**  
Approval ID: TA25015M

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine | 500 V                 | 63 A                  | -                 | - 10                        |



**UL Listed**  
Approval ID: E123528



**cUL Listed**  
Approval ID: E123528



**RINA**  
Approval ID: ELE362819XG

**ABS**

Approval ID: 26-0442639-PDA

**DNV**

Approval ID: TAA000011F



**IECEE CB Scheme**  
Approval ID: DE/PTZ/0044

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>



**cUL Listed**

Approval ID: E199827



**UL Listed**

Approval ID: E199827

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879  
<https://www.phoenixcontact.com/us/products/2902879>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371010 |
| ECLASS-15.0 | 27371010 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC000683 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 32151500 |
|-------------|----------|

# QUINT-ORING/24DC/2X40/1X80 - Redundancy module



2902879

<https://www.phoenixcontact.com/us/products/2902879>

## Environmental product compliance

### EU RoHS

|                                         |              |
|-----------------------------------------|--------------|
| Fulfills EU RoHS substance requirements | Yes          |
| Exemption                               | 7(a), 7(c)-I |

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-25                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | acf8c778-2c20-4a5a-a9e7-b40462d93e72 |

### EF3.1 Climate Change

|         |                |
|---------|----------------|
| CO2e kg | 34.077 kg CO2e |
|---------|----------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)