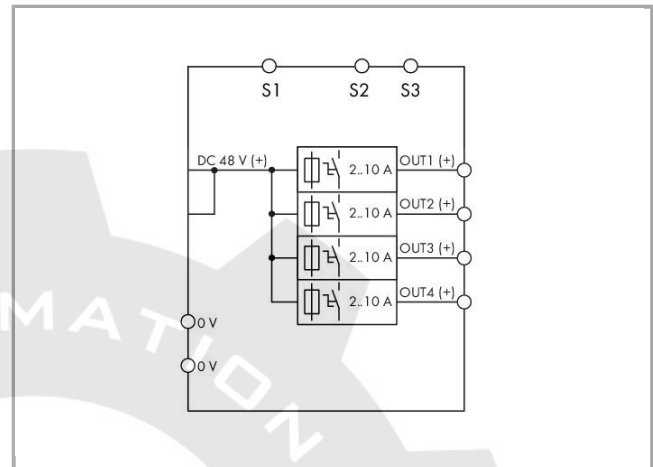


## Data sheet | Item number: 787-1664/000-200

electronic circuit breaker; 4-channel; 48 VDC input voltage; adjustable 2 ...  
10 A; communication capability



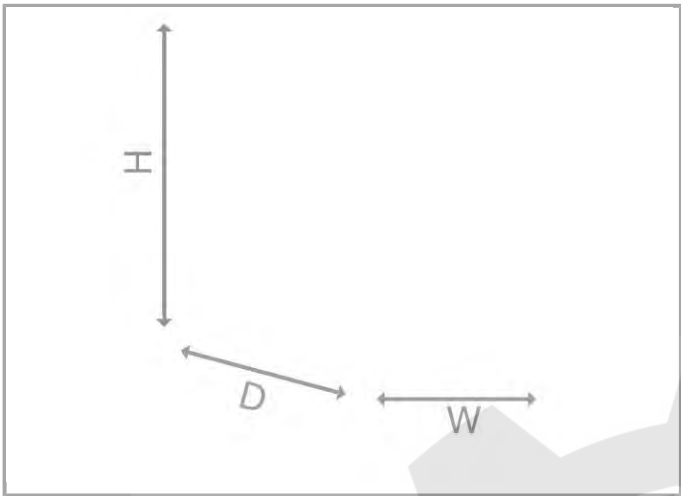
787-1664/000-200



RoHS   
Compliant



Similar to picture



Item description

Features:

- Space-saving ECB with four channels
- 2–10 A nominal current, adjustable for each channel via sealable selector switch
- Switch-on capacity > 23000 µF per channel
- One illuminated, three-colored button per channel simplifies switching (on/off), resetting, and on-site diagnostics
- Time-delayed switching of channels
- Tripped message (group signal)
- Status message for each channel via pulse sequence
- Remote input resets tripped channels or switches on/off any number of channels via pulse sequence

Data  
Technical Data

Input

|                                          |                |
|------------------------------------------|----------------|
| Nominal input voltage $U_{i\text{ nom}}$ | DC 48 V        |
| Input voltage range                      | DC 32 ... 58 V |

Output

|                                           |                                                                                |
|-------------------------------------------|--------------------------------------------------------------------------------|
| Total number of channels (module)         | 4                                                                              |
| Nominal output voltage $U_{o\text{ nom}}$ | 4 x DC 48 V                                                                    |
| Output voltage range                      | DC 32 ... 58 V ( $U_i$ – voltage drop)                                         |
| Voltage drop                              | ≤ 175 mV (Input (+))                                                           |
| Nominal output current $I_{o\text{ nom}}$ | 4 x 2 / 3 / 4 / 6 / 8 / 10 A (adjustable for each channel via selector switch) |
| Factory preset                            | DC 10 A; switched on                                                           |



|                           |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Trip time                 | 16 ms ... 100 s (Load-dependent)                                                                 |
| Switch-on capacity        | > 23000 µF per channel at 48 VDC, 2.5 mm <sup>2</sup> cable cross-section and 2.5 m cable length |
| Switch-on behavior        | Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s)                           |
| Active Current Limitation | no                                                                                               |

## Signaling and communication

|                            |                                                                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Signaling                  | 4 x LED (green/red/orange)<br>1 x remote input (S1)<br>2 x active signal output (S2, S3)                                                     |
| Operation status indicator | LED green (channel OK)<br>LED red (tripped channel)                                                                                          |
| Remote input               | Reactivation of all tripped channels via 15 ... 58 VDC pulse for min. 500 ms.<br>Switching on/off any number of channels via pulse sequence. |

## Efficiency/Power losses:

|                  |                                      |
|------------------|--------------------------------------|
| Power loss $P_v$ | ≤ 0.84 W (no load); ≤ 8 W (4 x 10 A) |
| Efficiency       | 99 %                                 |

## Fuse protection:

|               |                    |
|---------------|--------------------|
| Internal fuse | T 15 A per channel |
|---------------|--------------------|

## Safety and protection:

|                                         |                             |
|-----------------------------------------|-----------------------------|
| Insulation voltage (connectors-housing) | DC 0.5 kV                   |
| Protection class                        | III                         |
| Protection class                        | IP20 (per EN 60529)         |
| Reverse voltage protection              | No                          |
| Feedback voltage                        | ≤ DC 58 V                   |
| Transient protection, primary           | Suppressor diode, 68 V      |
| Parallel operation of single channels   | Not permitted               |
| Series connection                       | No                          |
| MTBF                                    | > 500,000 h (per IEC 61709) |

## Connection data

|                         |                                           |
|-------------------------|-------------------------------------------|
| Connection type (1)     | Input (+)                                 |
| Connection technology   | Push-in CAGE CLAMP®                       |
| WAGO terminal           | WAGO 831 Series                           |
| Solid conductor         | 0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG |
| Fine-stranded conductor | 0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG |



|                         |                                   |
|-------------------------|-----------------------------------|
| Strip length            | 13 ... 15 mm / 0.51 ... 0.59 inch |
| Connection type (2)     | Input (-), output, signaling      |
| Connection technology 2 | CAGE CLAMP®                       |
| WAGO terminal 2         | WAGO 721 Series                   |
| Solid conductor (2)     | 0.08 ... 2.5 mm² / 28 ... 12 AWG  |
| Strip length (2)        | 8 ... 9 mm / 0.31 ... 0.35 inch   |

## Geometrical Data

|                                       |                       |
|---------------------------------------|-----------------------|
| Width                                 | 45 mm / 1.772 inch    |
| Height                                | 90 mm / 3.543 inch    |
| Length from upper-edge of DIN-35 rail | 115.5 mm / 4.547 inch |

## Mechanical data

|                  |                        |
|------------------|------------------------|
| Type of mounting | DIN-35 rail (EN 60715) |
|------------------|------------------------|

## Material Data

|        |       |
|--------|-------|
| Weight | 170 g |
|--------|-------|

## Environmental Requirements

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| Surrounding air (operating) temperature | -25 ... 70 °C                            |
| Surrounding air (storage) temperature   | -25 ... 85 °C                            |
| Relative humidity                       | 5 ... 96 % (no condensation permissible) |
| Derating                                | ≥ 50 °C: see instruction manual          |
| Pollution degree                        | 2                                        |

## Standards and specifications

|                          |                                                                         |
|--------------------------|-------------------------------------------------------------------------|
| Conformity marking       | 1                                                                       |
| Standards/specifications | UL 508*; UL 2367*; GL*; EN 60950; EN 61000-6-2; EN 61000-6-3 (*pending) |

## Commercial data

|                    |               |
|--------------------|---------------|
| Country of origin  | DE            |
| GTIN               | 4055143318884 |
| Customs Tariff No. | 85363010900   |

## Approvals / Certificates

### Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
|------|----------|--------------------------|------------------|



DNV GL  
 Det Norske Veritas, Germanischer Lloyd

TAA0000281

## Compatible products

### Marking accessories

|                                                                                     |                                                                                                                        |                      |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------|
|     | Item no.: 2009-110<br>Marking strips; on reel; not stretchable; plain; snap-on type                                    | 2009-110             |
|    | Item no.: 2009-115<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type              | 2009-115             |
|    | Item no.: 2009-115/000-002<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type      | 2009-115<br>/000-002 |
|    | Item no.: 2009-115/000-006<br>WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type       | 2009-115<br>/000-006 |
|  | Item no.: 2009-115/000-007<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type      | 2009-115<br>/000-007 |
|  | Item no.: 2009-115/000-012<br>WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type       | 2009-115<br>/000-012 |
|  | Item no.: 2009-115/000-017<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type      | 2009-115<br>/000-017 |
|  | Item no.: 2009-115/000-023<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type      | 2009-115<br>/000-023 |
|  | Item no.: 2009-115/000-024<br>WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type       | 2009-115<br>/000-024 |
|   | Item no.: 2009-135<br>WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type              | 2009-135             |
|   | Item no.: 2009-145<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type         | 2009-145             |
|   | Item no.: 2009-145/000-002<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-002 |

|                                                                                    |                                                                                                                               |                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------|
|    | <b>Item no.: 2009-145/000-005</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-005 |
|    | <b>Item no.: 2009-145/000-006</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-006 |
|    | <b>Item no.: 2009-145/000-007</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-007 |
|    | <b>Item no.: 2009-145/000-012</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-012 |
|    | <b>Item no.: 2009-145/000-023</b><br>Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type  | 2009-145<br>/000-023 |
|    | <b>Item no.: 2009-145/000-024</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-024 |
|    | <b>Item no.: 210-831</b><br>Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive                                        | 210-831              |
|  | <b>Item no.: 210-832</b><br>Marking strips; on reel; 3 mm wide; plain; Self-adhesive                                          | 210-832              |
|  | <b>Item no.: 248-501</b><br>Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card  | 248-501              |
|  | <b>Item no.: 248-501/000-002</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-002  |
|  | <b>Item no.: 248-501/000-005</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-005  |
|  | <b>Item no.: 248-501/000-006</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-006  |
|  | <b>Item no.: 248-501/000-007</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-007  |
|  | <b>Item no.: 248-501/000-012</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-012  |
|  | <b>Item no.: 248-501/000-017</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | 248-501<br>/000-017  |

**Item no.: 248-501/000-023**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

248-501

/000-023

**Item no.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

**Item no.: 793-501/000-002**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-002

**Item no.: 793-501/000-005**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-005

**Item no.: 793-501/000-006**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-006

**Item no.: 793-501/000-007**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-007

**Item no.: 793-501/000-012**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-012

**Item no.: 793-501/000-017**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-017

**Item no.: 793-501/000-023**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-023

**Item no.: 793-501/000-024**

WMB marking card; as card; not stretchable; plain; snap-on type

793-501

/000-024

**Item no.: 793-5501**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

**Item no.: 793-5501/000-002**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-002

**Item no.: 793-5501/000-005**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-005

**Item no.: 793-5501/000-006**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-006

**Item no.: 793-5501/000-007**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-007

**Item no.: 793-5501/000-012**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

793-5501

**Item no.: 793-5501/000-014**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-014

793-5501

**Item no.: 793-5501/000-017**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-017

793-5501

**Item no.: 793-5501/000-023**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

793-5501

**Item no.: 793-5501/000-024**

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

793-5501

**ferrule****Item no.: 216-201**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated

216-201

**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated

216-202

**Item no.: 216-203**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated

216-203

**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated

216-204

**Item no.: 216-205**Ferrule; Sleeve for 2.08 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated

216-205

**Item no.: 216-206**Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated

216-206

**Item no.: 216-207**Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated

216-207

**Item no.: 216-208**Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-208

**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated

216-221

**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated

216-222

**Item no.: 216-223**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated

216-223

**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated

216-224

**Item no.: 216-241**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight

216-241



crimped; acc. to DIN 46228, Part 4/09.90



**Item no.: 216-242**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-242



**Item no.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-243



**Item no.: 216-244**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-244



**Item no.: 216-246**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-246



**Item no.: 216-262**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-262



**Item no.: 216-263**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-263



**Item no.: 216-264**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-264



**Item no.: 216-266**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-266



**Item no.: 216-267**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-267



**Item no.: 216-284**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-284



**Item no.: 216-286**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-286



**Item no.: 216-287**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-287



**Item no.: 216-288**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90

216-288

**Item no.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated

216-301



**Item no.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated

216-302

**Item no.: 216-321**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated

216-321



**Item no.: 216-322**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated

216-322



## tools

|                                                                                  |                                                                                                         |         |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------|
|  | <b>Item no.: 210-720</b><br>Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm | 210-720 |
|  | <b>Item no.: 210-721</b><br>Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm | 210-721 |
|  | <b>Item no.: 210-769</b><br>SCREWDRIVER                                                                 | 210-769 |

## Downloads

## Documentation

## Bid Text

|                          |              |         |          |
|--------------------------|--------------|---------|----------|
| 787-1664/000-200         | Jan 14, 2016 | doc     | Download |
| Stromversorgung EPSITRON |              | 38.9 kB |          |

## Instruction Leaflet

|                                              |          |          |
|----------------------------------------------|----------|----------|
| EPSITRON Electronic Circuit Breakers         | pdf      | Download |
| Electronic Circuit Breaker, 48 VDC / 4x 10 A | 605.5 kB |          |

## Additional Information

|                                                          |         |          |          |
|----------------------------------------------------------|---------|----------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf      | Download |
|                                                          |         | 265.8 kB |          |

## Libraries

## CoDeSys 3.x Library

|                                                      |              |         |          |
|------------------------------------------------------|--------------|---------|----------|
| Libraries for CODESYS V3.x                           | Feb 26, 2019 | ZIP     | Download |
| WAGO libraries based on CODESYS V3.x control systems |              | 17.4 MB |          |

- - WagoAppASi
- - WagoAppCanLayer2
- - WagoAppCom
- - WagoAppDALI
- - WagoAppDCDriveController
- - WagoAppDigitalImpulseInterface
- - WagoAppFuse
- - WagoAppIOLink
- - WagoAppPowerMeasurement
- - WagoAppSolenoid
- - WagoAppStepper
- - WagoAppVibrationMonitoring

"CODESYS Control Win V3" is used as a test instance in version 3.5.11.10.



787-1664/000-200 is added as a test instance in version 1.0.0.

Library

|                                                                                                                                                                                 |              |          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|----------|
| Connection of 787 Series power supplies                                                                                                                                         | V1.3.0       | zip      | Download |
| The WagoLib787_01.lib library makes function blocks and visualization objects available which can be used to display information from the WAGO 787 Series power supply modules. | May 14, 2014 | 562.7 kB |          |
| Connection of 787 Series power supplies                                                                                                                                         | V1.0.0       | zip      | Download |
| The WagoLib787_02.lib library makes function blocks and visualization objects available which can be used to display information from the WAGO 787 Series power supply modules. | Aug 28, 2017 | 348.4 kB |          |



Subject to changes.