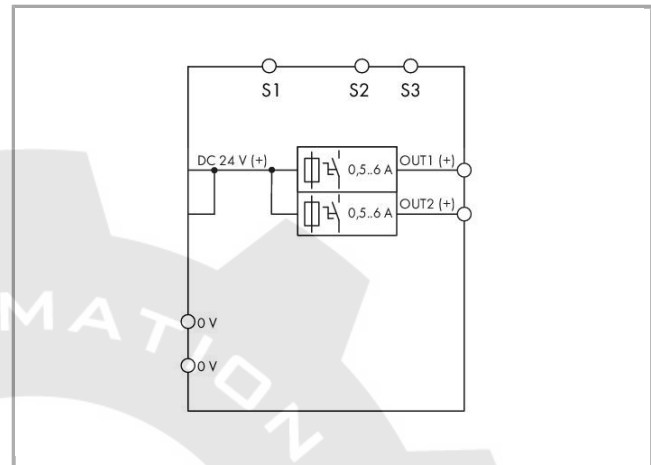


## Data sheet | Item number: 787-1662/006-1000

electronic circuit breaker; 2-channel; 24 VDC input voltage; adjustable 0.5 ...  
6 A; active current limitation; communication capability



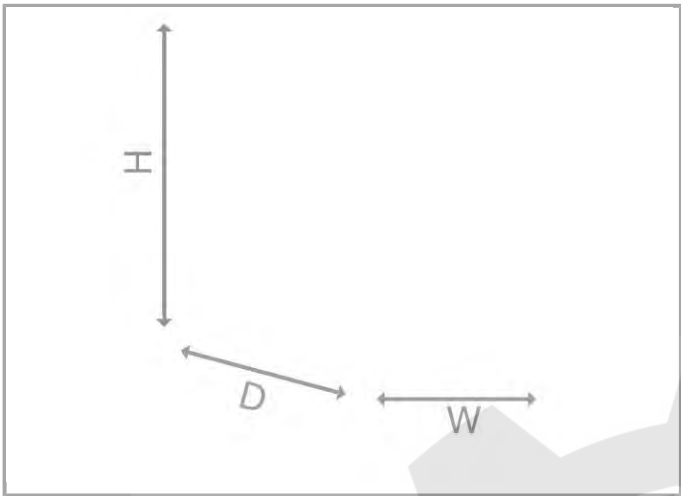
787-1662/006-1000



RoHS  
Compliant

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Similar to picture



Item description

Features:

- Space-saving ECB with two channels
- 0.5–6 A nominal current, adjustable for each channel via sealable selector switch
- Active current limitation
- Switch-on capacity > 65000 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 $U_{i\,nom}$ | DC 24 V        |
| Input voltage range                | DC 18 ... 30 V |

Output

|                                     |                                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------|
| Total number of channels (module)   | 2                                                                               |
| Nominal output voltage $U_{o\,nom}$ | 2 x DC 24 V                                                                     |
| Output voltage range                | DC 18 ... 30 V ( $U_i$ – voltage drop)                                          |
| Voltage drop                        | ≤ 145 mV (Input (+))                                                            |
| Nominal output current $I_{o\,nom}$ | 2 x 0.5 / 1 / 2 / 3 / 4 / 6 A (adjustable for each channel via selector switch) |

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| Factory preset            | DC 6 A; switched on                                                    |
| Trip time                 | 16 ms ... 5 s (Load-dependent)                                         |
| Switch-on capacity        | > 65000 $\mu$ F per channel                                            |
| Switch-on behavior        | Time-delayed channel switching (load-dependent, min. 50 ms / max. 5 s) |
| Active Current Limitation | yes                                                                    |
| Current limitation        | $1.7 \times I_{o\ nom}$ typ.                                           |

## Signaling and communication

|                            |                                                                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Signaling                  | 2 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 ... 30 VDC pulse for min. 500 ms.<br>Switching on/off any number of channels via pulse sequence. |

## Efficiency/Power losses:

|                  |                                                 |
|------------------|-------------------------------------------------|
| Power loss $P_v$ | $\leq 0.55$ W (no load); $\leq 2.5$ W (2 x 6 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                        | $\leq$ DC 35 V              |
| Transient protection, primary           | Suppressor diode, 33 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 mm <sup>2</sup> / 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                                | No derating                              |
| 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 |

## Commercial data

|                    |               |
|--------------------|---------------|
| Country of origin  | DE            |
| GTIN               | 4050821848325 |
| Customs Tariff No. | 85363010900   |

## Approvals / Certificates

### Ship Approvals

Certificate

| Logo                                                                             | Approval                                                | Additional Approval Text | name       |
|----------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|------------|
|  | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAA0000281 |

#### UL-Approvals

| Logo                                                                             | Approval                                    | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|---------------------------------------------|--------------------------|------------------|
|  | <b>UL</b><br>Underwriters Laboratories Inc. | UL 508                   | E255817          |

#### Compatible products

#### Marking accessories

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

**Item no.: 2009-135**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-135

**Item no.: 2009-145**

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**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-002

2009-145

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-005

2009-145

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-006

2009-145

**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-007

2009-145

**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

2009-145

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

2009-145

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

/000-024

2009-145

**Item no.: 210-831**

Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive

210-831

**Item no.: 210-832**

Marking strips; on reel; 3 mm wide; plain; Self-adhesive

210-832

**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

248-501

**Item no.: 248-501/000-002**

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

/000-002

248-501

**Item no.: 248-501/000-005**

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

/000-005

248-501

**Item no.: 248-501/000-006**

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

/000-006

248-501

**Item no.: 248-501/000-007**

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

/000-007

248-501

**Item no.: 248-501/000-012**

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

/000-012

248-501

**Item no.: 248-501/000-017**

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

/000-017

248-501

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

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

/000-023

248-501

**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

/000-002

793-501

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

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

/000-005

793-501

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

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

/000-006

793-501

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

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

/000-007

793-501

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

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

/000-012

793-501

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

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

/000-017

793-501

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

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

/000-023

793-501

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

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

/000-024

793-501

**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

/000-002

793-5501

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

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

/000-005

793-5501

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

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

/000-006

793-5501

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

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

/000-007

793-5501

**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

|                                                                                   |                                                                                                                                                                                      |         |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated                                                                            | 216-223 |
|    | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated                                                                          | 216-224 |
|    | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-241 |
|    | <b>Item no.: 216-242</b><br>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 |
|    | <b>Item no.: 216-243</b><br>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 |
|    | <b>Item no.: 216-244</b><br>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 |
|    | <b>Item no.: 216-246</b><br>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 |
|    | <b>Item no.: 216-262</b><br>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 |
|    | <b>Item no.: 216-263</b><br>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 |
|    | <b>Item no.: 216-264</b><br>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 |
|  | <b>Item no.: 216-266</b><br>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 |
|  | <b>Item no.: 216-267</b><br>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 |
|  | <b>Item no.: 216-284</b><br>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 |
|  | <b>Item no.: 216-286</b><br>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 |
|  | <b>Item no.: 216-287</b><br>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 |
|  | <b>Item no.: 216-288</b><br>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 |
|                                                                                   | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated                                                                         | 216-301 |
|  | <b>Item no.: 216-302</b><br>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****Item no.: 210-720**

Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm

210-720

**Item no.: 210-721**

Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm

210-721

**Item no.: 210-769**

SCREWDRIVER

210-769

**Downloads****Documentation****Manual**Electronic Circuit Breaker  
24 VDC / 2 x 2...10 A

V 1.0.0

pdf  
1.3 MB

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**Bid Text**787-1662/006-1000  
Stromversorgung EPSITRON

Jan 14, 2016

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**Additional Information**

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

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265.8 kB

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**Application Notes****Application Note CoDeSys 2.3**S7 Function Blocks for 787 Series  
S7 function blocks for the 787 Series (Epsitron, electronic circuit breakers and 3-phase power supplies).2.0.0  
Nov 17, 2015zip  
11.0 MB

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**Libraries****Library**



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| 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 |          |
| <hr/>                                                                                                                                                                           |              |          |          |
| 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.