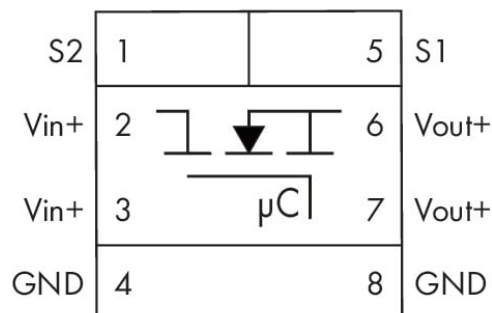
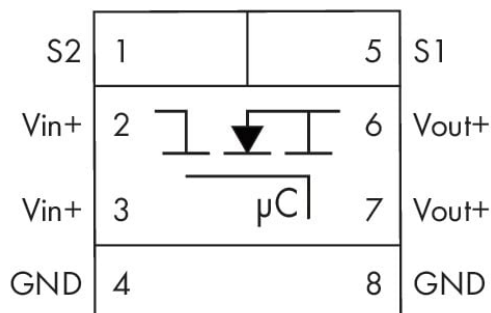
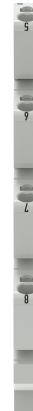
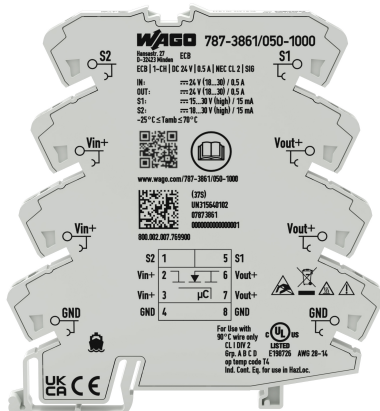
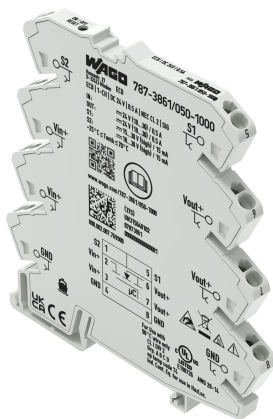


Data Sheet | Item Number: 787-3861/050-1000

Electronic circuit breaker; 1-channel; 24 VDC input voltage; 0.5 A; NEC Class 2; Signal contact

<https://www.wago.com/787-3861/050-1000>



Features:

- Space-saving ECB with one channel
- Reliably and safely trips in the event of an overload and short circuit on the secondary side
- Switch-on capacity < 5,000 µF
- Enables the use of an economical, standard power supply
- Minimizes wiring via two voltage outputs and maximizes commoning options on both input and output sides (e.g., commoning of the output voltage on 857 and 2857 Series devices)
- Status signal – adjustable as single or group message
- Reset, switch on/off via remote input or local switch
- Prevents power supply overload due to total inrush current thanks to time-delayed switching on during interconnected operation



Notes	
Note	The device is designed for use in SELV circuits. Depending on the output current, please use the approved minimum conductor cross-sections: 26 AWG (0.5 A)

Technical data			
Input		Output	
Nominal input voltage $U_{i\,nom}$	DC 24 V	Total number of channels (module)	1
Input voltage range	DC 18 ... 30 V(SELV)	Nominal output voltage $U_{o\,nom}$	1 x DC 24 V
		Output voltage range	DC 18 ... 30 V (U_e – voltage drop)
		Voltage drop	≤ 40 mV
		Nominal output current $I_{o\,nom}$	1 x 0.5 A (fixed setting)
		Default setting	; switched off
		Switch-on capacity	
		Switch-on behavior	Time-delayed channel switching (load-dependent, min. 0 ms/max. 500 ms)
		Current limitation	No

Signaling and communication	
Signaling	1 x Status LED (green/yellow/red) 1 x Signal output (18 ... 30 VDC, max. 0.015 A), Default setting: triggered
Operation status indicator	Green LED (channel OK) Red LED (channel switched off)
Remote input	1 x Control input (15 ... 30 VDC (active high); -3 ... 5 VDC (active low); max. 0.015 A)

Efficiency/power losses	
Power loss P_l	≤ 0.4 W (No load)
Efficiency (typ.)	96 %

Circuit protection	
Internal fuse	T 4 A

Safety and protection			
Isolation voltage (connectors – housing)	DC 1.5 kV	Insulation coordination (UL)	
Protection class	III	Overvoltage category	II
Protection type	IP20; per EN 60529	Pollution degree	2
Reverse voltage protection	No		
Overvoltage category	II		
Transient suppression (primary)	Suppressor diode (33 V)		
Parallel operation of single channels	Not permitted		
Series operation	No		
MTBF	1,168,394 h		

Insulation coordination	
Overvoltage category	II
Pollution degree	2

Connection data

Number of jumper slots	8
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 857 Series
Solid conductor	0.08 ... 2.5 mm² / 26 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm² / 22 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Note (conductor cross-section)	Depending on the output current, use the conductor cross-sections tested and approved by UL: 26 ... 14 AWG (0.5 A)

Physical data

Width	6 mm / 0.236 inches
Height from upper-edge of DIN-rail	97.8 mm / 3.85 inches
Depth	94 mm / 3.701 inches

Mechanical data

Mounting type	DIN-35 rail
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Material data

Fire load	0.631 MJ
Weight	55.6 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Relative humidity	10 ... 95 % (no condensation permissible)
Derating	No derating
Operating altitude	≤ 2000 m (a.s.l.)

Standards and specifications

Conformity marking	CE; UKCA
Standards/specifications	EN 61000-6-2 EN 61000-6-3 UL 61010-2-201 DNV UL 1310 (NEC Class 2) UL 2367

Commercial data

PU (SPU)	1 pcs
Country of origin	IN
Customs tariff number	85363010900



Environmental Product Compliance	
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
		
Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 2367	UL E175199 Vol.6 Sec.1 Serie787
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	UL E175199 Vol.3 Sec.5
Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas		
		
Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	UL E198726 Vol.2 Sec.3 Serie787

Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 787-3861/050-1000	

Documentation			
Instruction Leaflet			
Electronic Circuit Breaker	V 1.1.1 11.09.2023	pdf 2491.12 KB	



CAD/CAE-Data

CAD data

2D/3D Models
787-3861/050-1000

1 Compatible Products

1.1 Optional Accessories

1.1.1 Jumper

1.1.1.1 Jumper

 Item No.: 859-410/000-006 Jumper; for jumper slot; 10-way; insulated; blue	 Item No.: 859-410 Jumper; for jumper slot; 10-way; insulated; light gray	 Item No.: 859-410/000-005 Jumper; for jumper slot; 10-way; insulated; red	 Item No.: 859-410/000-029 Jumper; for jumper slot; 10-way; insulated; yellow
 Item No.: 859-402/000-006 Jumper; for jumper slot; 2-way; insulated; blue	 Item No.: 859-402 Jumper; for jumper slot; 2-way; insulated; light gray	 Item No.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow	 Item No.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue
 Item No.: 859-403 Jumper; for jumper slot; 3-way; insulated; light gray	 Item No.: 859-403/000-005 Jumper; for jumper slot; 3-way; insulated; red	 Item No.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow	 Item No.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue
 Item No.: 859-404 Jumper; for jumper slot; 4-way; insulated; light gray	 Item No.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red	 Item No.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow	 Item No.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue
 Item No.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray	 Item No.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red	 Item No.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow	 Item No.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue
 Item No.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray	 Item No.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red	 Item No.: 859-406/000-029 Jumper; for jumper slot; 6-way; insulated; signal yellow	 Item No.: 859-407/000-006 Jumper; for jumper slot; 7-way; insulated; blue
 Item No.: 859-407 Jumper; for jumper slot; 7-way; insulated; light gray	 Item No.: 859-407/000-005 Jumper; for jumper slot; 7-way; insulated; red	 Item No.: 859-407/000-029 Jumper; for jumper slot; 7-way; insulated; yellow	 Item No.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue
 Item No.: 859-408 Jumper; for jumper slot; 8-way; insulated; light gray	 Item No.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red	 Item No.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow	 Item No.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue
 Item No.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray	 Item No.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red	 Item No.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow	



1.1.2 Marking

1.1.2.1 Marker



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; white



Item No.: 793-502
WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-566
WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-503
WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-504
WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-505
WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-506
WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white



Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.2.2 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.1.3 Potential distribution

1.1.3.1 Potential distribution module



Item No.: 787-3861/000-1000
Potential distribution module; 1 potential; with 8 clamping points 0V; Conductor cross-section up to 2.5 mm²



Item No.: 787-3861/000-2000
Potential distribution module; 1 potential; with 8 clamping points 24V; Conductor cross-section up to 2.5 mm²



Item No.: 787-3861/000-3000
Potential distribution module; 2 potentials; with 4 clamping points each (0V / 24V); Conductor cross-section up to 2.5 mm²

1.1.4 Tool

1.1.4.1 Operating tool



Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured