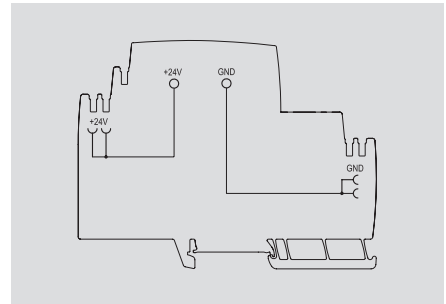
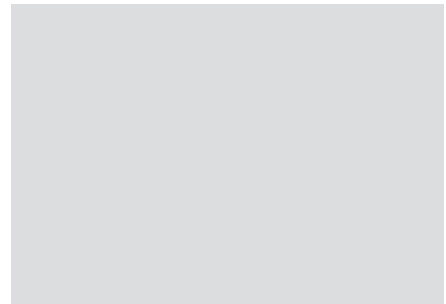


maxGUARD – Feed-in module

Passive Feed-in module

AMG FIM-0



Technical data

Input	
Input fuse (internal)	No
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	
Current consumption (full load)	
max. admissible residual ripple at the input	100 mVpp
Surge protection	
General data	
Protection degree	IP20
Control inputs	No
Overvoltage category	III
Connection data	
Number of terminals	2 (+,-)
Wire cross-section, AWG/kcmil min/max	18..6
Wire cross-section, flexible min/max	0.75...16 mm ²
Wire cross-section, rigid min/max	0.75...10 mm ²
Screwdriver blade	1.2 x 6.5
Approvals	
Approvals	
Note	

Technical data		
	No	
	18...30 V DC	
	24 V DC	
	100 mVpp	
	IP20	
	No	
	III	
	2 (+,-)	
	18..6	
	0.75...16 mm ²	
	0.75...10 mm ²	
	1.2 x 6.5	
Approvals		
Approvals		
Note		

Ordering data

Rated current	
Note	

Type	Qty.	Order No.
AMG FIM-0	1	2081870000

Technical data

Machinery

Process

Energy

Transportation

Device Manufacturers

maxGUARD – feed-in module

Active feed-in module with Reset- and Alarmfunktion

AMG FIM-C



Technical data

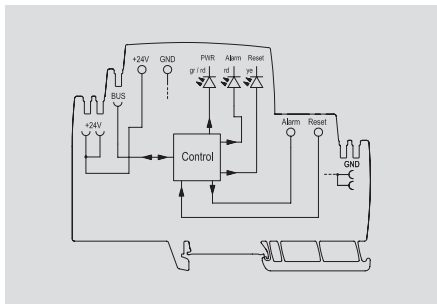
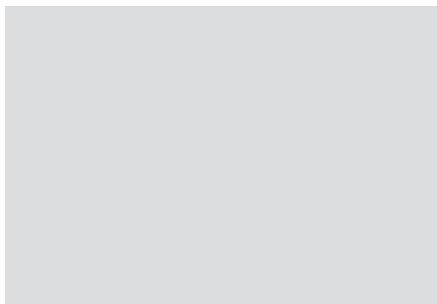
Input
Input fuse (internal)
DC input voltage range
Rated input voltage
Current consumption (idle)
Current consumption (full load)
max. admissible residual ripple at the input
Surge protection
General data
Protection degree
Control inputs
Overvoltage category
Signalling
LED yellow
LED green
LED red
Transistor output, positive-switching
Connection data
Number of terminals
Wire cross-section, AWG/kcmil min/max
Wire cross-section, flexible min/max
Wire cross-section, rigid min/max
Screwdriver blade
Approvals
Approvals
Note

Ordering data

Rated current
Note

No
18...30 V DC
24 V DC
20 mA
120 mA
100 mVpp
Suppressor diode
IP20
Reset
III
External reset is signalled, Alarm is signalled
Operating voltage OK
Alarm
Alarm

Type	Qty.	Order No.
AMG FIM-C	1	2081880000



Technical data

Machinery

Process

Energy

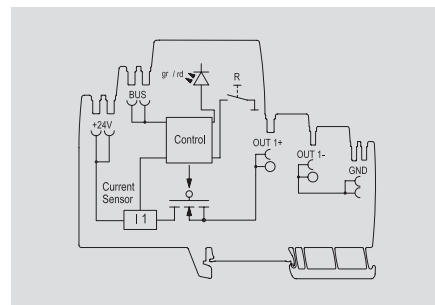
Transportation

Device Manufacturers

maxGUARD – Load monitoring (fixed value)

Electronic load monitoring with fixed rated current (without I > 90 % pre warning)

AMG ELM - xF



Technical data

Machinery



Process



Energy



Transportation



Device Manufacturers



Technical data

Input	
Input fuse (internal)	Yes
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle) / Current consumption (full load)	25 mA / I _{out} +30 mA
max. admissible residual ripple at the input	100 mVpp
Output	
Connection system	PUSH IN
Triggering characteristic	see characteristic curve
Switch-on delay	1 s
Capacitive load	2080420000: 10,000 µF; 2080480000: 10,000 µF; 2080490000: 10,000 µF; 2080500000: 15,000 µF
Surge protection	Suppressor diode
Function key	
LED initial state	LED green, in operation LED flashing red, load monitoring has triggered (disconnected) LED red (permanently lit)
Pressing the button	> 0.1 to 2 s (manual disconnect) > 0.1 to 2 s (confirm and reset) > 0.1 to 2 s (restart)
LED, subsequent state	Red LED switched off Red LED switched off LED green switched on
General data	
Relay to activate the output	No
Protection degree / Overvoltage category	IP20 / III
Signalling	
LED green	Operation (failure-free)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)
Connection data	
Number of terminals	2 (+ / -)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	

Ordering data

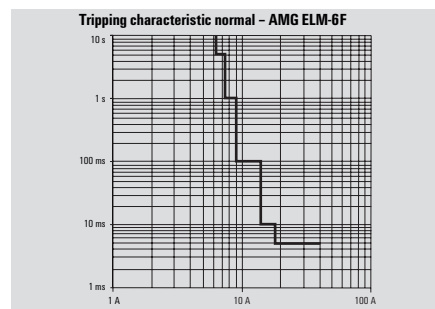
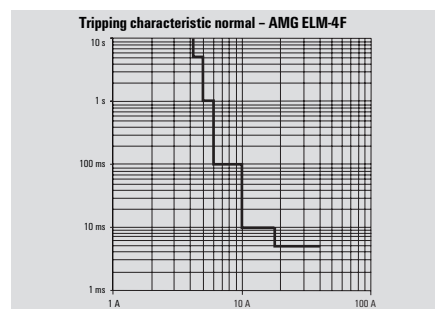
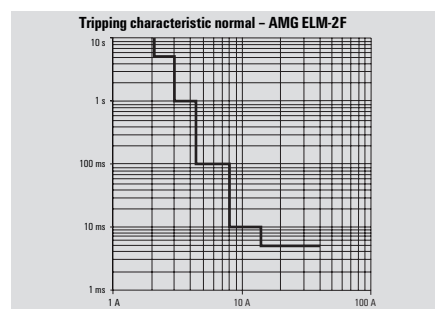
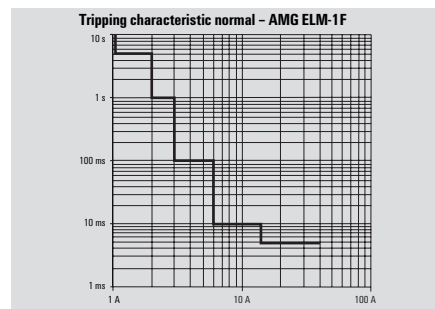
Rated current	1.00 A
	2.00 A
	4.00 A
	6.00 A
Note	

Accessories

Note	
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Type	Qty.	Order No.
AMG ELM-1F	1	2080420000
AMG ELM-2F	1	2080480000
AMG ELM-4F	1	2080490000
AMG ELM-6F	1	2080500000

Type	Qty.	Order No.
AMG DIS	10	2123050000
AMG MD	10	2122930000
AMG OD	10	2122910000
AMG PD	10	2122920000



maxGUARD – Load monitoring (fixed value)

Electronic load monitoring with fixed rated current (without $I > 90\%$ pre warning)

AMG ELM - fixed value



Technical data

Input	
Input fuse (internal)	Yes
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	25 mA
Current consumption (full load)	$I_{OUT} + 30\text{ mA}$
max. admissible residual ripple at the input	100 mVpp
Surge protection	Suppressor diode
Output	
Connection system	PUSH IN
Triggering characteristic	see characteristic curve
Switch-on delay	1 s
Capacitive load	2080600000: 15,000 μF ; 2080650000: 20,000 μF
Function key	
LED initial state	LED green, in operation LED flashing red, load monitoring has triggered (disconnected) LED red (permanently lit)
Pressing the button	> 0.1 to 2 s (manual disconnect) > 0.1 to 2 s (confirm and reset) > 0.1 to 2 s (restart)
LED, subsequent state	Red LED switched off Red LED switched off LED green switched on
Output, subsequent state	
General data	
Relay to activate the output	No
Protection degree	IP20
Oversvoltage category	III
Signalling	
LED green	Operation (failure-free)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)
Connection data	
Number of terminals	4 (++ / -)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	

Ordering data

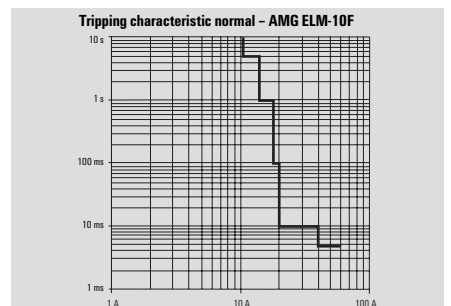
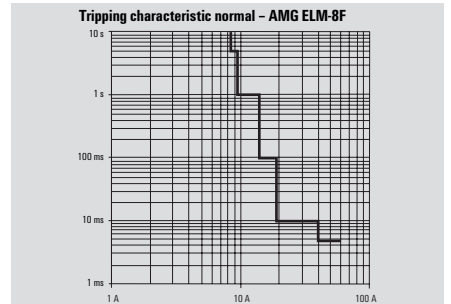
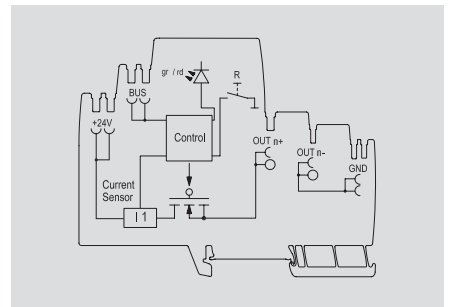
Rated current	8.00 A
	10.00 A
Note	

Accessories

Note	
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Type	Qty.	Order No.
AMG ELM-8F	1	2080600000
AMG ELM-10F	1	2080650000

Type	Qty.	Order No.
AMG DIS	10	2123050000
AMG MD	10	2122930000
AMG OD	10	2122910000
AMG PD	10	2122920000



Technical data

Machinery



Process



Energy



Transportation



Device Manufacturers



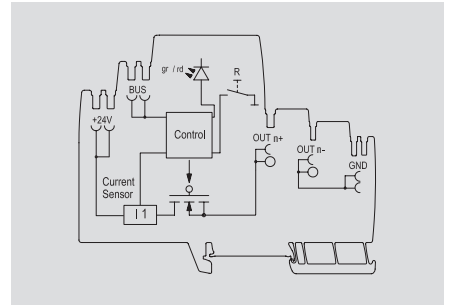
maxGUARD – Load monitoring (fixed value)

Class 2

Electronic load monitoring with fixed rated current (without I > 90 % pre warning)

- Class 2 Approval

AMG ELM - xF CL2



Technical data

Machinery

Process

Energy

Transportation

Device Manufacturers

Technical data

Input	
Input fuse (internal)	Yes
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	25 mA
Current consumption (full load)	I _{OUT} +30 mA
max. admissible residual ripple at the input	100 mVpp
Surge protection	Suppressor diode
Output	
Connection system	PUSH IN
Triggering characteristic	see characteristic curve
Switch-on delay	1 s
Capacitive load	2491270000: 10,000 µF; 2491280000: 10,000 µF; 2491290000: 10,000 µF

Function key

LED initial state			
LED green, in operation	LED flashing red, load monitoring has triggered (disconnected)	LED red (permanently lit)	
Pressing the button			
LED, subsequent state	Red LED switched off	Red LED switched off	LED green switched on

General data

Relay to activate the output	No
Protection degree	IP20
Overvoltage category	III
Signalling	
LED green	Operation (failure-free)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)

Connection data

Number of terminals	2 (+ / -)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5

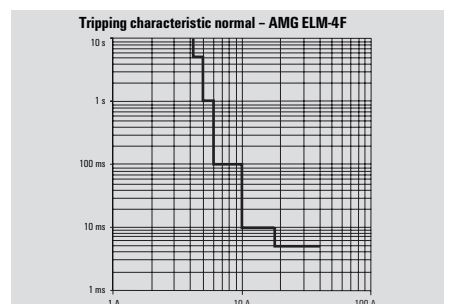
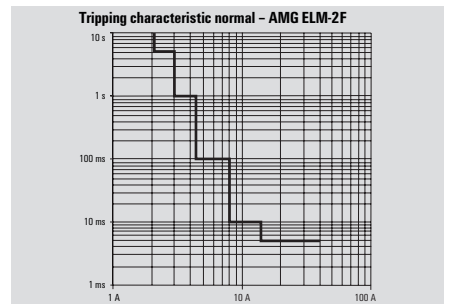
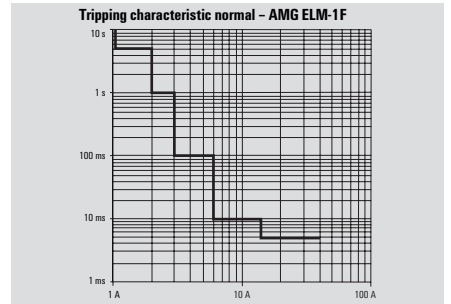
Approvals

Approvals	
Note	

Ordering data

Type	Qty.	Order No.
AMG ELM-1F CL2	1	2491270000
AMG ELM-2F CL2	1	2491280000
AMG ELM-4F CL2	1	2491290000
Note		

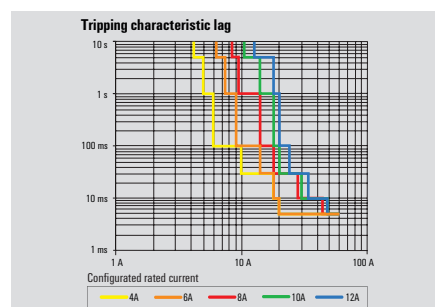
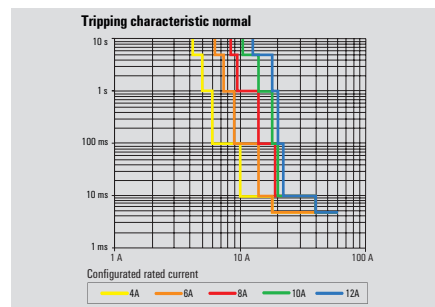
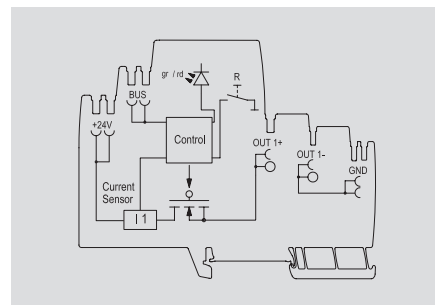
Type	Qty.	Order No.
AMG ELM-1F CL2	1	2491270000
AMG ELM-2F CL2	1	2491280000
AMG ELM-4F CL2	1	2491290000
Note		



maxGUARD – Load monitoring adjustable

Electronic load monitoring with adjustable trigger current and characteristic (with I > 90 % pre warning)

AMG ELM-12



Technical data

Machinery

Process

Energy

Transportation

Device Manufacturers

Technical data

Input	
Input fuse (internal)	Yes
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	25 mA
Current consumption (full load)	I _{OUT} +30 mA
max. admissible residual ripple at the input	100 mVpp
Output	
Connection system	PUSH IN
Triggering characteristic	see characteristic curve
Backup modes	4-12 A
Switch-on delay	1 s
adjustable rated current	Yes
Capacitive load	20,000 µF
Surge protection	Suppressor diode
Function key	
LED initial state	LED green, in operation

Yes
18...30 V DC
24 V DC
25 mA
I _{OUT} +30 mA
100 mVpp
PUSH IN
see characteristic curve
4-12 A
1 s
Yes
20,000 µF
Suppressor diode

LED green, in operation	LED flashing red, load monitoring has triggered (disconnected)	LED red (permanently lit)
> 0.1 to 2 s (manual disconnect)	> 0.1 to 2 s (confirm and reset)	> 0.1 to 2 s (restart)
Red LED switched off	Red LED switched off	LED green switched on

Pressing the button	
LED, subsequent state	
Output, subsequent state	
General data	
Relay to activate the output	No
Protection degree	IP20
Oversvoltage category	III
Signalling	
LED green	Operation (failure-free), Early warning: I Out > 90% I Rated (flashing)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)

Connection data	
Number of terminals	4 (++ / -)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	

Ordering data

Rated current	
	12.00 A
Note	

Type	Qty.	Order No.
AMG ELM-12	1	2080410000

Accessories

Note	
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Type	Qty.	Order No.
AMG DIS	10	2123050000
AMG MD	10	2122930000
AMG OD	10	2122910000
AMG PD	10	2122920000

maxGUARD – load monitoring

Electronic load monitoring with 2-pole output relay for all pole disconnection (with I > 90 % pre warning).

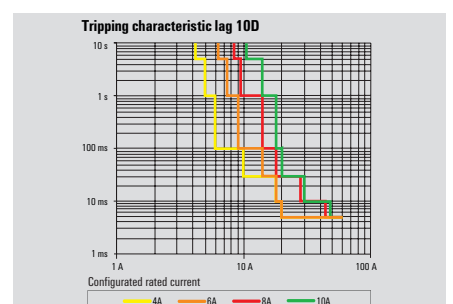
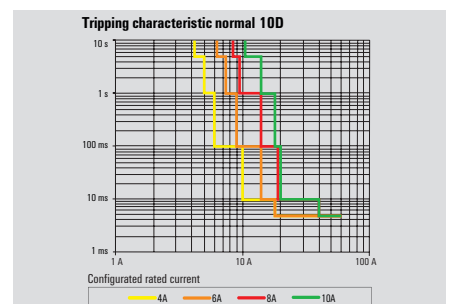
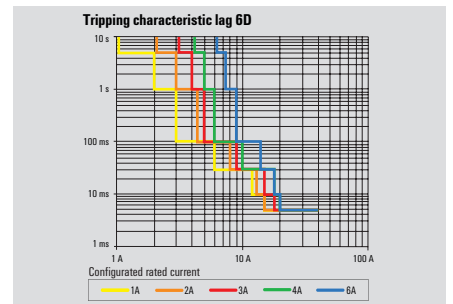
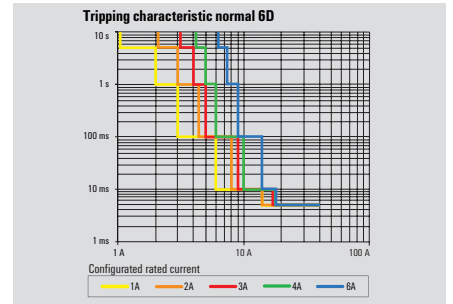
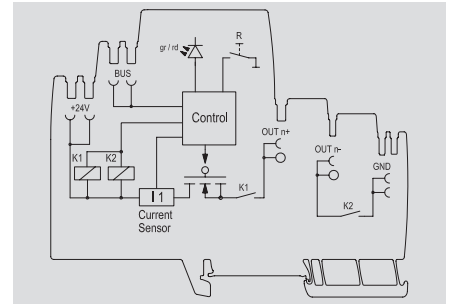
Technical data

Input	
Input fuse (internal)	Yes
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	40 mA
max. admissible residual ripple at the input	100 mVpp
Output	
Connection system	PUSH IN
Triggering characteristic	see characteristic curve
Backup modes	2082470000: 4 A, 4 A lag-tripping, 6 A, 6 A lag-tripping, 8 A, 8 A lag-tripping, 10 A, 10 A lag-tripping 2082440000: 1 A, 1 A lag-tripping, 2 A, 2 A lag-tripping, 3 A, 3 A lag-tripping, 4 A, 4 A lag-tripping, 6 A, 6 A lag-tripping
Switch-on delay	1 s
adjustable rated current	Yes
Capacitive load	20,000 µF 15,000 µF
Surge protection	Suppressor diode
Function key	
LED initial state	LED green, in operation LED flashing red, load monitoring has triggered (disconnected) LED red (permanently lit)
Pressing the button	> 0.1 to 2 s (manual disconnect) > 0.1 to 2 s (confirm and reset) > 0.1 to 2 s (restart)
LED, subsequent state	Red LED switched off
Output, subsequent state	Red LED switched off LED green switched on
General data	
Relay to activate the output	Yes
Protection degree / Surge protection	IP20 / Suppressor diode
Conformal coating	Yes
Signalling	
LED green	Operation (failure-free), Early warning: I Out > 90% I Rated (flashing)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)
Connection data	
Number of terminals	6 (3x + / 3x -)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	
Ordering data	
Rated current	6.00 A
	10.00 A
Note	
Accessories	
Note	

AMG ELM – adjustable with output relay



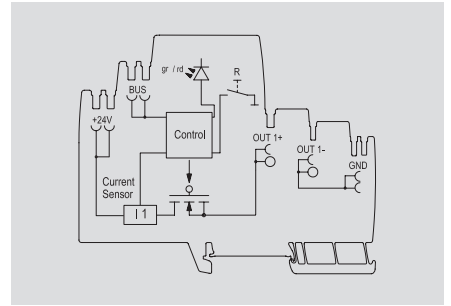
Type	Qty.	Order No.
AMG ELM-6D CO	1	2082440000
AMG ELM-10D CO	1	2082470000
Type	Qty.	Order No.
AMG DIS	10	2123050000
AMG MD	10	2122930000
AMG OD	10	2122910000
AMG PD	10	2122920000



maxGUARD - Load monitoring 4-channel

4-channel electronic load monitoring with fixed triggering current (without I > 90 % pre warning).

AMG ELM 4-channel fixed value variants



Technical data

Input
Input fuse (internal)
DC input voltage range
Rated input voltage
Current consumption (idle) / Current consumption (full load)
max. admissible residual ripple at the input
Output
Connection system
Triggering characteristic
Switch-on delay
adjustable rated current
Capacitive load
Surge protection
Rated current per channel

Yes
18...30 V DC
24 V DC
35 mA / 4x I _{OUT} +45 mA
100 mVpp
PUSH IN
see characteristic curve
1 s
No
10,000 µF
Suppressor diode
2080750000: 2 A; 2 A; 2 A; 2 A
2081650000: 2 A; 2 A; 4 A; 4 A
2081820000: 2 A; 2 A; 6 A; 6 A
2080880000: 4 A; 4 A; 4 A; 4 A
2080920000: 6 A; 6 A; 6 A; 6 A

Number of channels
Function key
LED initial state
Pressing the button

4
LED green, in operation
LED flashing red, load monitoring has triggered (disconnected)
LED red (permanently lit)
> 0.1 to 2 s (manual disconnect)
> 0.1 to 2 s (confirm and reset)
> 0.1 to 2 s (restart)

LED, subsequent state
Output, subsequent state
General data
Relay to activate the output
Protection degree / Overvoltage category

Red LED
Red LED
LED green
switched off
switched off
switched on

Signalling
LED green
LED red

Connection data
Number of terminals
Wire cross-section, AWG/kcmil min/max
Wire cross-section, flexible min/max
Wire cross-section, rigid min/max
Screwdriver blade
Approvals
Approvals
Note

No
IP20 / III
Operation (failure-free)
Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)
8 (4x + / 4x -)
26...12
0.14...2.5 mm ²
0.14...2.5 mm ²
0.6 x 3.5

Ordering data

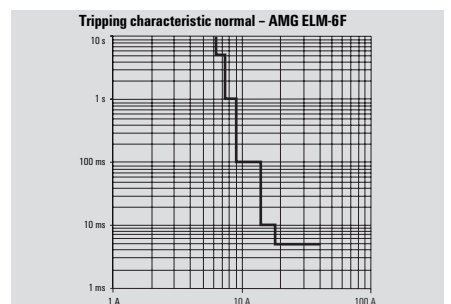
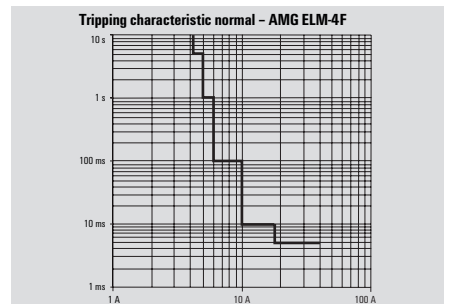
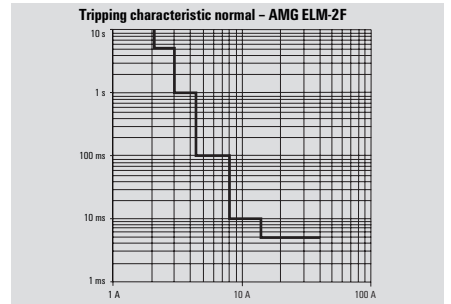
Rated current
Note

Type	Qty.	Order No.
AMG ELM-Q2222	1	2080750000
AMG ELM-Q2244	1	2081650000
AMG ELM-Q2266	1	2081820000
AMG ELM-Q4444	1	2080880000
AMG ELM-Q6666	1	2080920000

Accessories

Note

Type	Qty.	Order No.
AMG XMD	10	2122940000



maxGUARD – Alarm module

Alarm module with floating contacts for „alarm“ and „I>90 %“ signals.

Technical data

Input
Input fuse (internal)
DC input voltage range
Rated input voltage
Current consumption (idle)
Current consumption (full load)
max. admissible residual ripple at the input
Surge protection
General data
Protection degree
Overvoltage category
Signalling
LED yellow
LED red
Floating contact
Status relay (max. load)
Connection data
Number of terminals
Wire cross-section, AWG/kcmil min/max
Wire cross-section, flexible min/max
Wire cross-section, rigid min/max
Screwdriver blade
Approvals
Approvals
Note

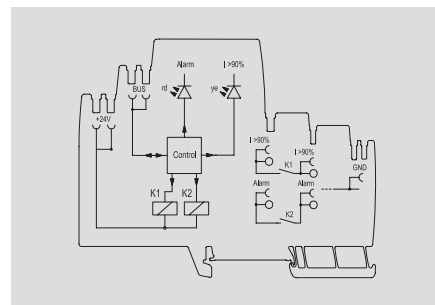
Ordering data

Rated current
Note

Accessories

Pluggable cross-connection	
	50-pole
	50-pole / red
	50-pole / blue
	2-pole
	2-pole/ red
	2-pole / blue
Note	

AMG AM



No
18...30 V DC
24 V DC
25 mA
30 mA
100 mVpp
Suppressor diode
IP20
III
Current > 90% Inom (flashing)
Alarm
Yes
Alarm (24 V / 0.1 A), I > 90% (24 V / 0.1 A)
4 (2 x NO)
26...12
0.14...2.5 mm ²
0.14...2.5 mm ²
0.6 x 3.5

Type	Qty.	Order No.
AMG AM	1	2081890000

Type	Qty.	Order No.
ZQV 4N/50	5	1528130000
ZQV 4N/50 RD	5	2460730000
ZQV 4N/50 BL	5	1528240000
ZQV 4N/2	60	1527930000
ZQV 4N/2 RD	60	2460450000
ZQV 4N/2 BL	60	1528040000

Technical data

Machinery

Process

Energy

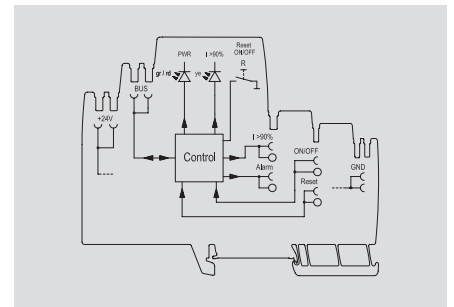
Transportation

Device Manufacturers

maxGUARD – Control module

Control module with extended control functions: Alarm, Reset, I>90 %, ON/OFF

AMG CM



Technical data

Input	
DC input voltage range	18...30 V DC
Rated input voltage	24 V DC
Current consumption (idle)	25 mA
Current consumption (full load)	225 mA
max. admissible residual ripple at the input	100 mVpp
Output	
Connection system	PUSH IN
Surge protection	Suppressor diode
General data	
Relay to activate the output	No
Protection degree	IP20
Control inputs	ON/ OFF, Reset
Overvoltage category	III
Signalling	
LED green	Operation (failure-free), Early warning: I Out > 90% I Rated (flashing)
LED red	Load monitoring has disconnected, Load monitoring has triggered (flashing), Internal error (rapid flashing)
Transistor output, positive-switching	Pre-warning, Alarm
Connection data	
Number of terminals	2 (Reset / ON)
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	

Type	Qty.	Order No.
AMG CM	1	2081900000

Ordering data

Rated current	
Note	

Type	Qty.	Order No.
AMG CM	1	2081900000

Accessories

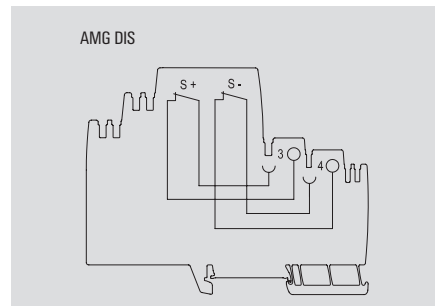
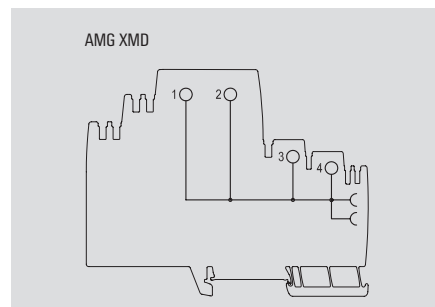
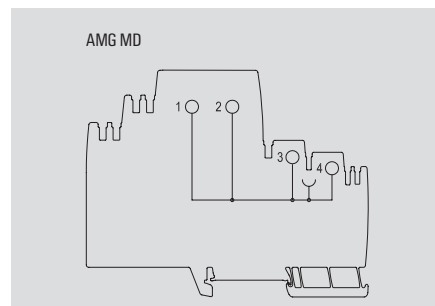
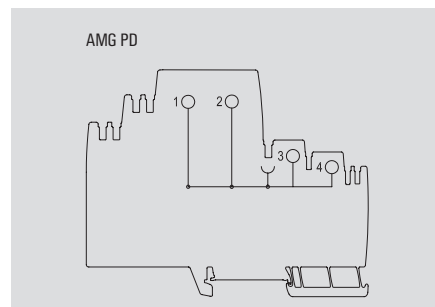
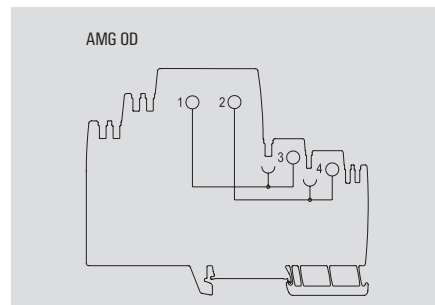
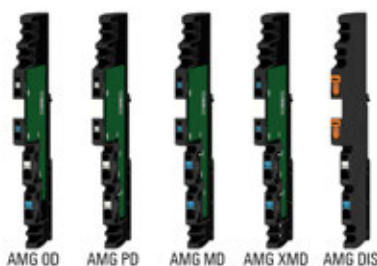
Pluggable cross-connection	
50-pole	ZQV 4N/50
50-pole / red	ZQV 4N/50 RD
50-pole / blue	ZQV 4N/50 BL
2-pole	ZQV 4N/2
2-pole/ red	ZQV 4N/2 RD
2-pole / blue	ZQV 4N/2 BL
Note	

Type	Qty.	Order No.
ZQV 4N/50	5	1528130000
ZQV 4N/50 RD	5	2460730000
ZQV 4N/50 BL	5	1528240000
ZQV 4N/2	60	1527930000
ZQV 4N/2 RD	60	2460450000
ZQV 4N/2 BL	60	1528040000

maxGUARD – Potential distributor

Potential distribution in combination with the electronic load monitoring.

AMG



Technical data

General data	
Protection degree	IP20
Total current load per potential	2122910000: 12 A; 2122920000: 12 A; 2122930000: 12 A; 2122940000: 24 A; 2123050000: 12 A
Current load per contact point	12 A
Connection data	
Connection system	PUSH IN
Number of terminals	4 (++ / -), 2 x 1.5 mm ² , 2 x 2.5 mm ²
Wire cross-section, AWG/kcmil min/max	26...12
Wire cross-section, flexible min/max	0.14...2.5 mm ²
Wire cross-section, rigid min/max	0.14...2.5 mm ²
Screwdriver blade	0.6 x 3.5
Approvals	
Approvals	
Note	

Ordering data

Type	Qty.	Order No.
AMG OD	10	2122910000
AMG PD	10	2122920000
AMG MD	10	2122930000
AMG XMD	10	2122940000
AMG DIS	10	2123050000

Note

Accessories

Pluggable cross-connection	
50-pole	ZQV 4N/50
50-pole / red	ZQV 4N/50 RD
50-pole / blue	ZQV 4N/50 BL
2-pole	ZQV 4N/2
2-pole / red	ZQV 4N/2 RD
2-pole / blue	ZQV 4N/2 BL

Note

Type	Qty.	Order No.
ZQV 4N/50	5	1528130000
ZQV 4N/50 RD	5	2460730000
ZQV 4N/50 BL	5	1528240000
ZQV 4N/2	60	1527930000
ZQV 4N/2 RD	60	2460450000
ZQV 4N/2 BL	60	1528040000

Type	Qty.	Order No.
ZQV 4N/50	5	1528130000
ZQV 4N/50 RD	5	2460730000
ZQV 4N/50 BL	5	1528240000
ZQV 4N/2	60	1527930000
ZQV 4N/2 RD	60	2460450000
ZQV 4N/2 BL	60	1528040000

Type	Qty.	Order No.
ZQV 4N/50	5	1528130000
ZQV 4N/50 RD	5	2460730000
ZQV 4N/50 BL	5	1528240000
ZQV 4N/2	60	1527930000
ZQV 4N/2 RD	60	2460450000
ZQV 4N/2 BL	60	1528040000

Technical data

Machinery

Process

Energy

Transportation

Device Manufacturers

Technical data

Machinery

Process

Energy

Transportation

Device
Manufacturers

maxGUARD - Accessories

Cross-connections orange

Cross-connections blue

Cross-connections red



2-pin
3-pin
4-pin
5-pin
6-pin
7-pin
8-pin
9-pin
10-pin
50-pin

Type	Qty.	Order No.
ZQV 4N/2	60	1527930000
ZQV 4N/3	60	1527940000
ZQV 4N/4	60	1527970000
ZQV 4N/5	60	1527980000
ZQV 4N/6	20	1527990000
ZQV 4N/7	20	1528020000
ZQV 4N/8	20	1528030000
ZQV 4N/9	20	1528070000
ZQV 4N/10	20	1528090000
ZQV 4N/50	5	1528130000

Type	Qty.	Order No.
ZQV 4N/2 BL	60	1528040000
ZQV 4N/3 BL	60	1528080000
ZQV 4N/4 BL	60	1528120000
ZQV 4N/5 BL	60	1528140000
ZQV 4N/6 BL	20	1528170000
ZQV 4N/7 BL	20	1528180000
ZQV 4N/8 BL	20	1528190000
ZQV 4N/9 BL	20	1528220000
ZQV 4N/10 BL	20	1528230000
ZQV 4N/50 BL	5	1528240000

Type	Qty.	Order No.
ZQV 4N/2 RD	60	2460450000
ZQV 4N/3 RD	60	2460810000
ZQV 4N/4 RD	60	2460800000
ZQV 4N/5 RD	60	2460790000
ZQV 4N/6 RD	20	2460780000
ZQV 4N/7 RD	20	2460770000
ZQV 4N/8 RD	20	2460760000
ZQV 4N/9 RD	20	2460750000
ZQV 4N/10 RD	20	2460740000
ZQV 4N/50 RD	5	2460730000

maxGUARD - Accessories

Partition plate

End bracket

Cutting tool for cross-connectors



Type	Qty.	Order No.
AMG PP	40	2123000000

Type	Qty.	Order No.
WEW 35/2 SW	100	1061210000

Type	Qty.	Order No.
KT 14	1	1157820000