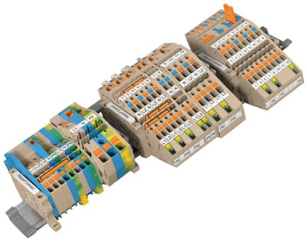


weidmuller A Series Modular Terminal Blocks Instruction Manual

Weidmüller

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE

II 2 GD
Ex eb IIC Gb
Modular TERMINAL Blocks: A- Series
TÜV 16 ATEX 7909 U
IECEx TUR 16.0036 U
Notified Body No. of Ex – QA: 0344
Label print on package unit: 0344
TÜV21UKEX7001U
Approved Body No. of UK Ex – QA: xxxx
(see product marking)

Contents

A Series Modular Terminal Blocks

Standards:
EN 60079-0:2018 and EN 60079-7:2015 A1:2018
IEC 60079-0: 7th Edition and IEC 60079-7: 5.1th Edition
Modular Terminal Blocks: A3C 2.5

Version:	A3C 2.5*
in conjunction with:	A3C 2.5 PE
Accessories:	Type
end plate	AEP 3C 2.5*
end bracket	AEB 35 SC/1*
Terminal rail	TS 35/… acc.to DIN EN 60715
Cross-connection	Plugable ZQV 2.5N/2* ZQV 2.5N/3* ZQV 2.5N/4* ZQV 2.5N/5* ZQV 2.5N/6* ZQV 2.5N/7* ZQV 2.5N/8* ZQV 2.5N/9* ZQV 2.5N/10*

Insulation material:

– Type	Wemid
– Tracking resistance (A) to IEC 60112	CTI ≥ 600
– Flammability class to UL 94	V0
– Operating temperature range	-60°C…+110°C (insulating material limit)
– Ambient temperature range	-60°C…+40°C (for T6 applications)
– Ambient temperature range	-60°C…+55°C (for T5 applications)
– Ambient temperature range	-60°C…+70°C (for T4 applications)

*** in all colours**

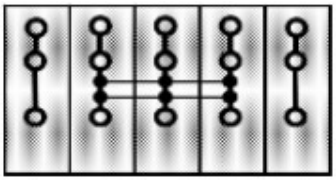
Technical data according to IEC/EN 60079-7 (increased safety “eb”):

	A3C 2.5	A3C 2.5 PE
– Rated voltage	550 V	
– Rated current	21 A / ΔT ≤ 40 K	
– Rated current with ZQV	21 A / ΔT ≤ 40 K	
– Contact resistance with rated conductor, 2.5 mm²	0,8 mΩ	
– Rated conductor cross section	2,5 mm²	2,5 mm²
– Conductor cross section solid	0,5 – 2,5 mm²	0,5 – 2,5 mm²
– Conductor cross section stranded	0,5 – 2,5 mm²	0,5 – 2,5 mm²
– Conductor cross section flexible	0,5 – 2,5 mm²	0,5 – 2,5 mm²
– cross section, American Wire Gauge	28 – 12 AWG	28 – 12 AWG
– Stripping length	10 mm	10 mm

IECEx / ATEX / UKCA Terminal and Cross-Connection Arrangements:
Max voltage data according to IEC/EN 60079-7 in conjunction with protective earth terminal blocks of the A-Series, (increased safety “eb”):

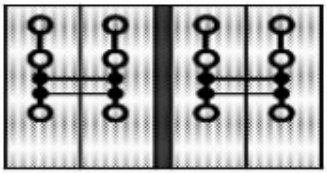
Application Case

A – Continuous no difference between one or two cross connections



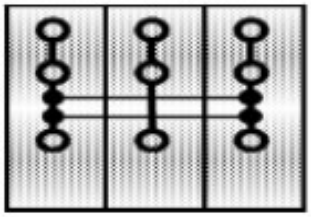
440 V

C – Adjacent – separated by an end plate no difference between one or two cross-connections



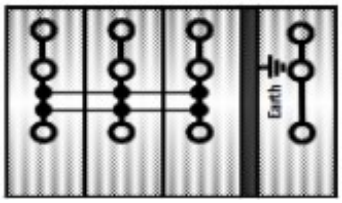
550 V

D – Intermediate – bridging one or more unconnected terminals (e.g. every 3rd terminal) no difference between one or two cross connections



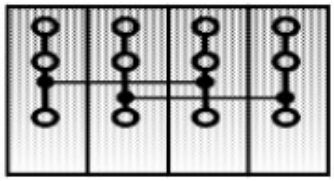
352 V

F – Next to a protective conductor terminal (earth) with end plate



550 V

H – Cross-connection with twin parallel



220 V

Note:

If smaller cross sections than the rated cross section are used, the belonging lower current has to be laid down in the IECEx/EC-Type Examination Certificate of the complete apparatus.

Mounting instructions:

The Feed-through terminals and PE terminals of the A-series are suitable for application in enclosures in atmospheres with flammable gases or combustible dust. For use in flammable gases these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-7. For use in combustible dust these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31. Regarding the use of accessories the instructions of the manufacturer must be followed.

Schedule of Limitations:

The Feed-through terminals and PE terminals of the A-series are suitable for use in enclosures in atmospheres with flammable gases or combustible dust. For flammable gases these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-7. For combustible dust the enclosure must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31.

The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks. The terminal blocks shall be placed inside a suitable certified IP54 enclosure in type of protection “e” for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable certified enclosure (EN60079-31) in type of protection “t”.

Under normal operating conditions the temperature rise of the terminal blocks is maximum 40 K, measured at the maximum permitted rated current. Due to the above mentioned, the terminal blocks may be used in apparatus of temperature classes T6..T1 as long as the terminal block ambient temperature range is not exceeded. No part of terminal block must exceed 110 °C under any condition.

T6 (- 60°C … +40 °C)

T5 (- 60°C … +55 °C)

T4 (- 60°C … +70 °C)

When using the types A3C 2.5 and A3C 2.5 PE especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to IEC/EN60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

For cross connection accessories current rating, resistance across the terminal please refer to the table under “Technical data” above.

If smaller conductor cross sections than the rated conductor cross sections are used, then the corresponding lower current shall be stated in the Certificate of the complete apparatus.

No other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.

 – Cross connections with blank ends shall not be used.

– Manually cut cross connections shall not be used.

Essential Health and Safety Requirements:

Concerning ESRs this Schedule verifies compliance with the Annex II of ATEX / Schedule 1 of UKCA directive and Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II / Schedule 1 of these Directives.

Weidmüller Interface GmbH Co. KG; Klingenbergstraße 26, 32758 Detmold-Germany
Version: A3C 2.5; 10652171
Index: 04
Date: 11.2021

Documents / Resources

	weidmuller A Series Modular Terminal Blocks [pdf] Instruction Manual A3C 2.5, A3C 2.5 PE, A Series Modular Terminal Blocks, A Series, Modular Terminal Blocks, Terminal Blocks, Blocks

References

- acc.to