

Technical Note

Sigma-5 AC Input Power & Motor Connectors

Applicable Products: Sigma-5 Amplifiers 50W–1.5kW



Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
Title: Sigma-5 AC Input Power & Motor Connectors	

About This Document

This document provides technical information and factory configuration details for the SGDV AC Input Power Connectors and the SGDV Motor Power Connector, for Sigma-5 amplifiers of capacities ranging from 50W to 1.5kW¹. This includes technical information about the jumper wires installed on the connector.

Amplifiers that do not use AC input power and motor connectors are:

- SGDV-120A0*A008000 (1.5kW, Single-Phase 200V)
- SGDV-180A and above (1.8kW and above, 200V)
- SGDV-8R4D and above (1.8kW and above, 400V)

Since these amplifiers do not have AC input power and motor connectors (they have terminal screws), these amplifiers are not discussed in this document.

This document contains shortened part numbers (for example: SGDV-R90F), but the shortened part number refers to all part numbers beginning with that shortened part number. For example, SGDV-R90F refers to SGDV-R90F11A, SGDV-R90FE1A000000201, and any other part number that begins with SGDV-R90F.

¹ Excluding the SGDV-120A0*A008000 (1.5kW, Single-Phase 200V). This amplifier does not use these connectors.



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Table of Contents

1.	All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector.....	4
2.	100V SGDV Amplifiers 50W – 400W: AC Input Power Connector.....	5
3.	200V SGDV Amplifiers 50W – 400W: AC Input Power Connector.....	6
4.	200V SGDV Amplifiers 450W – 1.5kW: AC Input Power Connector.....	7
5.	400V SGDV Amplifiers 450W – 1.5kW: AC Input Power Connector.....	8
6.	Technical Information.....	9
	Part Numbers For Connectors.....	9
	Details For SGDV Connector Jumper Wires.....	10
	Installation Details For SGDV Connector Jumper Wires.....	10

Model Number & Wattage Chart

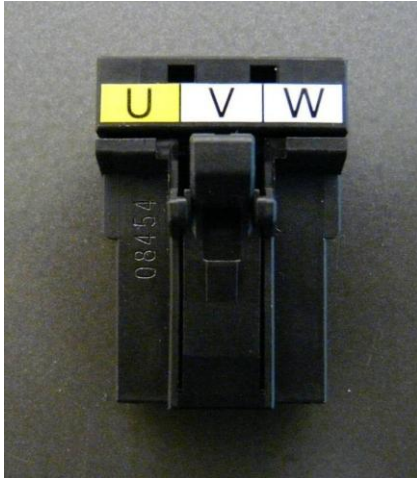
100V		200V		400V	
SGDV-R70F	50W	SGDV-R70A	50W	SGDV-1R9D	450W
SGDV-R90F	100W	SGDV-R90A	100W	SGDV-3R5D	1.0kW
SGDV-2R1F	200W	SGDV-1R6A	200W	SGDV-5R4D	1.5kW
SGDV-2R8F	400W	SGDV-2R8A	400W		
		SGDV-3R8A	450W		
		SGDV-5R5A	750W		
		SGDV-7R6A	850W		
		SGDV-120A0* A000000 (Three-phase)	1.5kW		



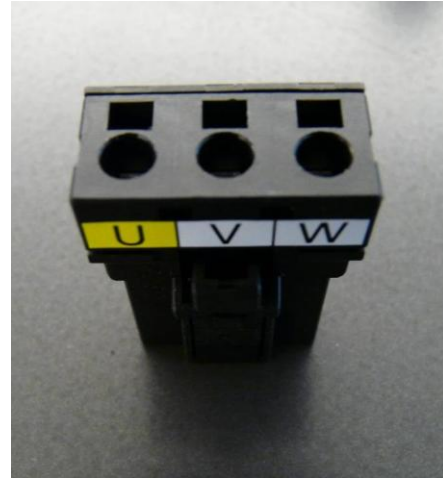


Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
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1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector



Front View



Angled View

[Pictured] Part number: 1-2013522-3.

Note: Qty 1 of pictured item is included in Kits: **Y-05481-1, Y-05481-2, Y-05481-3, Y-05481-4.**
Refer to [6. Technical Information](#) for full kit contents.

Applicable Amplifiers

100V		200V		400V	
SGDV-R70F	50W	SGDV-R70A	50W	SGDV-1R9D	450W
SGDV-R90F	100W	SGDV-R90A	100W	SGDV-3R5D	1.0kW
SGDV-2R1F	200W	SGDV-1R6A	200W	SGDV-5R4D	1.5kW
SGDV-2R8F	400W	SGDV-2R8A	400W		
		SGDV-3R8A	450W		
		SGDV-5R5A	750W		
		SGDV-7R6A	850W		
		SGDV-120A0* A000000 (Three-phase)	1.5kW		

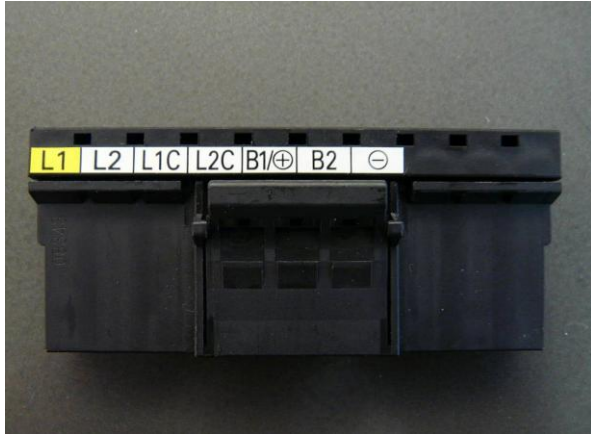
Factory configuration details:

- No jumper wires exist on this connector when shipped with an amplifier from the factory, and jumper wires must never be installed on this connector.
- Applicable amplifiers also include an AC input power connector. See sections [2](#), [3](#), [4](#), & [5](#) for details.



Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
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2. 100V SGDV Amplifiers 50W – 400W: AC Input Power Connector



Front View



Angled View

[Pictured] Part number: **9-2013522-0**.

Note: Qty 1 of pictured item is included in Kit: **Y-05481-1**.
Refer to [6. Technical Information](#) for full kit contents.

Applicable Amplifiers

100V	
SGDV-R70F	50W
SGDV-R90F	100W
SGDV-2R1F	200W
SGDV-2R8F	400W

Factory configuration details:

- No jumper wires exist on this connector when shipped with an amplifier from the factory.
- Applicable amplifiers also include a motor power connector. See [1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector](#) for details.



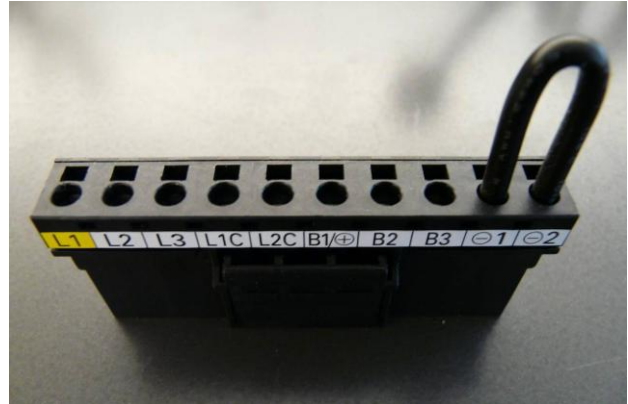


Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
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3. 200V SGDV Amplifiers 50W – 400W: AC Input Power Connector



Front View



Angled View

[Pictured] Part number: **1-2013522-0** (connector) + installed **Y05481A-KA-P07-E** (jumper wire).

Note: Qty 1 of pictured item is included in Kit: **Y-05481-2**.

Refer to [6. Technical Information](#) for full kit contents.

Applicable Amplifiers

200V	
SGDV-R70A	50W
SGDV-R90A	100W
SGDV-1R6A	200W
SGDV-2R8A	400W

Factory configuration details:

- 1 jumper wire exists on this connector when shipped with an amplifier from the factory. For technical information about the connector jumper wires, see [6. Technical Information](#).
- The jumper wire connects terminals ① and ②.
- Applicable amplifiers also include a motor power connector. See [1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector](#) for details.



CAUTION:

The 200V AC input power connector has different jumper wire configurations depending on which capacity of amplifier it is used with (see [4. 200V SGDV Amplifiers 450W – 1.5kW: AC Input Power Connector](#) for other configurations).





Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
Title: Sigma-5 AC Input Power & Motor Connectors	

4. 200V SGDV Amplifiers 450W – 1.5kW¹: AC Input Power Connector



Front View



Angled View

[Pictured] Part number: **1-2013522-0** (connector) + qty 2 installed **Y05481A-KA-P07-E** (jumper wire).

Note: Qty 1 of pictured item is included in Kit: **Y-05481-3**.

Refer to [6. Technical Information](#) for full kit contents.

Applicable Amplifiers

200V	
SGDV-3R8A	450W
SGDV-5R5A	750W
SGDV-7R6A	850W
SGDV-120A0*A000000 (Three-phase)	1.5kW

Factory configuration details:

- 2 jumper wires exist on this connector when shipped with an amplifier from the factory. For technical information about the connector jumper wires, see [6. Technical Information](#).
- One jumper wire connects terminals $\ominus 1$ and $\ominus 2$.
- One jumper wire connects terminals **B2** and **B3**.
- Applicable amplifiers also include a motor power connector. See [1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector](#) for details.



CAUTION:

The 200V AC input power connector has different jumper wire configurations depending on which capacity of amplifier it is used with (see [3. 200V SGDV Amplifiers 50W – 400W: AC Input Power Connector](#) for other configurations).

¹ Excluding the SGDV-120A0*A008000 (1.5kW, Single-Phase 200V). This amplifier does not use these connectors.

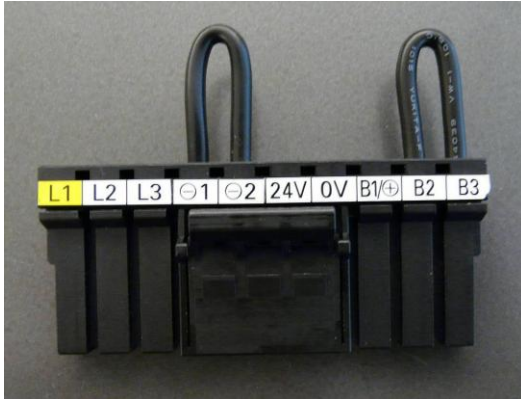


Product: Sigma-5 Amplifiers 50W–1.5kW

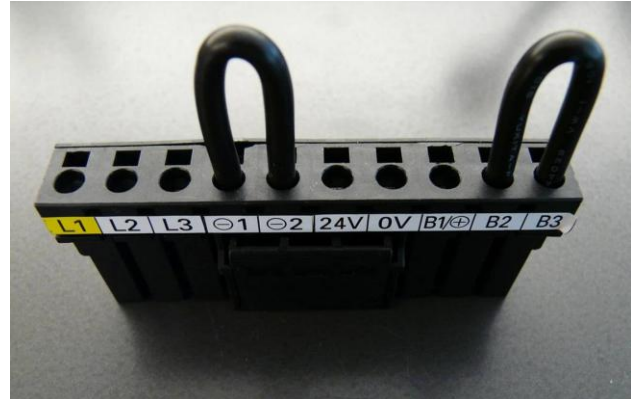
Doc#: TN.SGDV.04

Title: Sigma-5 AC Input Power & Motor Connectors

5. 400V SGDV Amplifiers 450W – 1.5kW: AC Input Power Connector



Front View



Angled View

[Pictured] Part number: **2-2013522-0** (connector) + qty 2 installed **Y05481A-KA-P07-E** (jumper wire).

Note: Qty 1 of pictured item is included in Kit: **Y-05481-4**.

Refer to [6. Technical Information](#) for full kit contents.

Applicable Amplifiers

400V	
SGDV-1R9D	450W
SGDV-3R5D	1.0kW
SGDV-5R4D	1.5kW

Factory configuration details:

- 2 jumper wires exist on this connector when shipped with an amplifier from the factory. For technical information about the connector jumper wires, see [6. Technical Information](#).
- One jumper wire connects terminals **01** and **02**.
- One jumper wire connects terminals **B2** and **B3**.
- Applicable amplifiers also include a motor power connector. See [1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector](#) for details.



Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
Title: Sigma-5 AC Input Power & Motor Connectors	

6. Technical Information

Part Numbers For Connectors

100V, 50-400W:

Kit Part Number: **Y-05481-1** includes the following:

AC input connector:	9-2013522-0	x 1 piece
U.V.W connector:	1-2013522-3	x 1 piece
Lever:	1981045-1	x 1 piece
Safe Jumper Connector:	JZSP-CVH05-E	x 1 piece

200V, 50W-400W:

Kit Part Number: **Y-05481-2** includes the following:

AC input connector:	1-2013522-0	x 1 piece
U.V.W connector:	1-2013522-3	x 1 piece
Lever:	1981045-1	x 1 piece
Safe Jumper Connector:	JZSP-CVH05-E	x 1 piece
Jumper wire (installed):	Y05481A-KA-P07-E	x 1 piece

200V, 450W-1.5kW¹:

Kit Part Number: **Y-05481-3** includes the following:

AC input connector:	1-2013522-0	x 1 piece
U.V.W connector:	1-2013522-3	x 1 piece
Lever:	1981045-1	x 1 piece
Safe Jumper Connector:	JZSP-CVH05-E	x 1 piece
Jumper wires (installed):	Y05481A-KA-P07-E	x 2 pieces

400V, 450W-1.5kW:

Kit Part Number: **Y-05481-4** includes the following:

AC input connector:	2-2013522-0	x 1 piece
U.V.W connector:	1-2013522-3	x 1 piece
Lever:	1981045-1	x 1 piece
Safe Jumper Connector:	JZSP-CVH05-E	x 1 piece
Jumper wires (installed):	Y05481A-KA-P07-E	x 2 pieces

¹ Excluding the SGD-120A0*A008000 (1.5kW, Single-Phase 200V). This amplifier does not use these connectors.





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Details For SGDV Connector Jumper Wires

These are the suggested specifications to be used for the connector jumper wires.

Wire size: **14 AWG**

Ratings:

Temperature rating: **105°C**

Voltage rating: **600 V**

Standards:

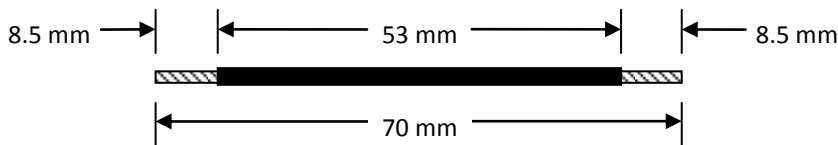
UL (AWM) / CSA

Lengths:

70 mm (total)

8.5 mm (approximate stripped length on each side)

53 mm (unstripped length)



Installation Details For SGDV Connector Jumper Wires

- Jumper wires must be fully seated.
- Stripped section of the jumper wire must not be visible from the outside of the connector.
- The 200V AC input power connector has different jumper wire configurations depending on which capacity of amplifier it is used with (see [3. 200V SGDV Amplifiers 50W – 400W: AC Input Power Connector](#) and [4. 200V SGDV Amplifiers 450W – 1.5kW: AC Input Power Connector](#) for details).

