

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 connector jumpers.

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). It does not use these connectors.



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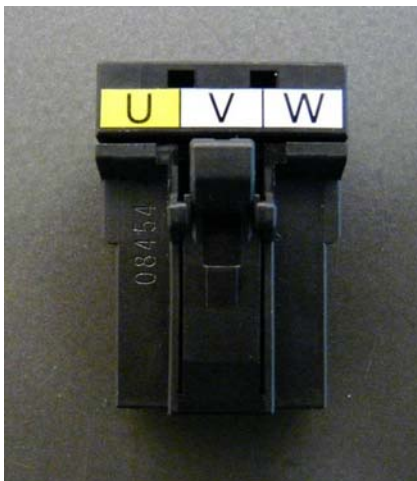
Model Number & Wattage Chart

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		



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1. All SGDV Amplifiers 50W – 1.5kW: Motor Power Connector



Front View

Part number: 1-2013522-3



Angled View

Part number: 1-2013522-3

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:

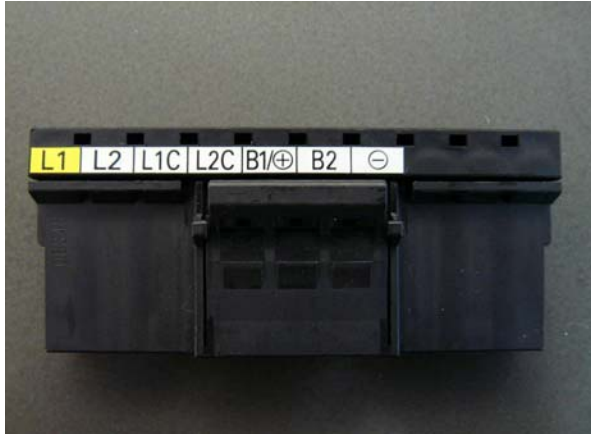
- No jumpers exist on this connector when shipped with an amplifier from the factory.
- Applicable amplifiers also include an AC input power connector. See sections 2-5 for details.





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2. 100V SGDV Amplifiers 50W – 400W: AC Input Power Connector



Front View

Part number: 9-2013522-0



Angled View

Part number: 9-2013522-0

Applicable Amplifiers

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

Factory configuration details:

- No jumpers exist on this connector when shipped with an amplifier from the factory.
- Applicable amplifiers also include a motor power connector. See section 1 for details.



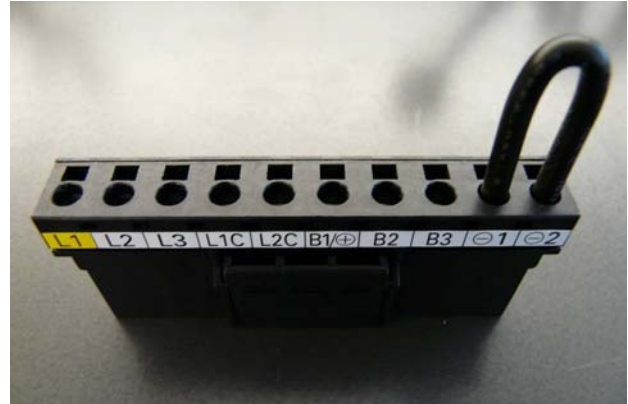
Product: Sigma-5 Amplifiers 50W–1.5kW	Doc#: TN.SGDV.04
Title: Sigma-5 AC Input Power & Motor Connectors	

3. 200V SGDV Amplifiers 50W – 400W: AC Input Power Connector



Front View

Part number: 1-2013522-0, plus 1 jumper



Angled View

Part number: 1-2013522-0, plus 1 jumper

Applicable Amplifiers

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

Factory configuration details:

- 1 jumper exists on this connector when shipped with an amplifier from the factory. For technical information about the connector jumpers, see section 6.
- The jumper connects terminals ⊖1 and ⊖2.
- Applicable amplifiers also include a motor power connector. See section 1 for details.



CAUTION:

The 200V AC input power connector has different jumper configurations depending on which capacity of amplifier it is used with (see section 4 for other configurations).



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



Front View

Part number: 1-2013522-0, plus 2 jumpers



Angled View

Part number: 1-2013522-0, plus 2 jumpers

Applicable Amplifiers

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

Factory configuration details:

- 2 jumpers exist on this connector when shipped with an amplifier from the factory. For technical information about the connector jumpers, see section 6.
- One jumper connects terminals B2 and B3.
- One jumper connects terminals ⊖1 and ⊖2.
- Applicable amplifiers also include a motor power connector. See section 1 for details.



CAUTION:

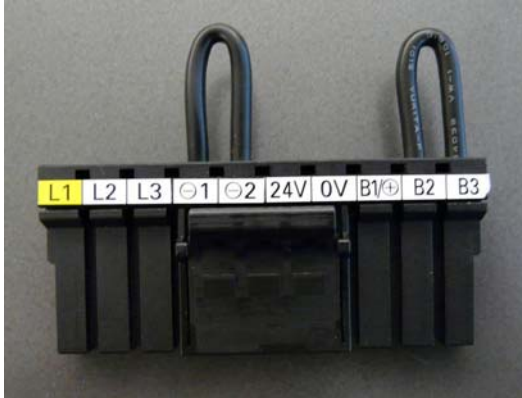
The 200V AC input power connector has different jumper configurations depending on which capacity of amplifier it is used with (see section 3 for other configurations).

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



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



Front View

Part number: 2-2013522-0, plus 2 jumpers



Angled View

Part number: 2-2013522-0, plus 2 jumpers

Applicable Amplifiers

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

Factory configuration details:

- 2 jumpers exist on this connector when shipped with an amplifier from the factory. For technical information about the connector jumpers, see section 6.
- One jumper connects terminals 01 and 02.
- One jumper connects terminals B2 and B3.
- Applicable amplifiers also include a motor power connector. See section 1 for details.



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6. Technical Information

Part Numbers For Connectors

(excludes jumper information)

100V 50-400W:

AC input power connector: **9-2013522-0**

Motor power connector: **1-2013522-3**

200V 50W-1.5kW¹:

AC input power connector: **1-2013522-0**

Motor power connector: **1-2013522-3**

400V 450W-1.5kW:

AC input power connector: **2-2013522-0**

Motor power connector: **1-2013522-3**

Details For SGDV Connector Jumpers

These are the suggested specifications to be used for the connector jumpers.

Wire size: 14 AWG

Ratings:

Temperature rating: 105°C

Voltage rating: 600 V

Standards:

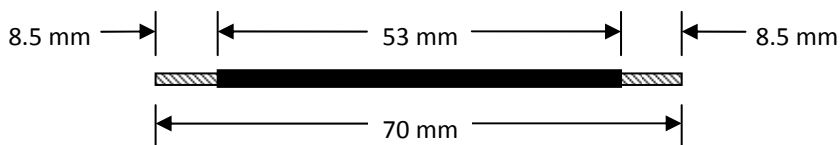
UL (AWM) / CSA

Lengths:

70 mm (total)

8.5 mm (approximate stripped length on each side)

53 mm (unstripped length)



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





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Installation Details For SGDV Connector Jumpers

- Jumper must be fully seated.
- Stripped area of the jumper must disappear inside the connector.
- The 200V AC input power connector has different jumper configurations depending on which capacity of amplifier it is used with (see sections 3 and 4 for details).