OMRON
AUTOMATION & SAFETY

S8VK POWER SUPPLIES

Reliable operation – anywhere in the world

» The most compact design on the market

» Resistant in tough environments

» Easy and fast installation

Compact power supplies...

Omron has developed a new and exciting family of compact power supplies. With the same high quality and practical design that made our previous series safe, reliable, and easy to install, the new S8VK series is even tougher, more compact and easier to use. Omron is a world leader in the development and manufacture of industrial power supplies. We launched our first compact product, the S82K, in 1987 and our S8VS compact series has been an automatic choice with customers since 2002.

To ensure that we provide the perfect solution to match every customer's need, Omron has launched 4 different families:

- *The cost effective S8VK-**C** models*
- *The global standard S8VK-**G** models*
- *The redundancy units S8VK-**R** models*
- *The three phase S8VK-**T** models*

...that make a world of difference!

Three compelling reasons why the S8VK is the right power supply for you:

Resistant in tough environments

Omron is confident the quality of our S8VK series power supplies will exceed your expectations. Its robust design and construction which can withstand up to 5G of shock and vibration (allowing it to withstand harsh environments), and its extreme operating temperature range (-40ºC to 70ºC) will provide stable operation for demanding applications. S8VK series contains extraordinary MTBF ratings, allowing it to provide sustainable operating conditions in your application.

Easy and fast installation

The S8VK series not only offers you greater flexibility when designing your application, it also saves you time and reduces costs thanks to the minimal wiring requirements and easy one-handed mounting provided by the enhanced DIN-rail mounting clip.

The most compact class on the market

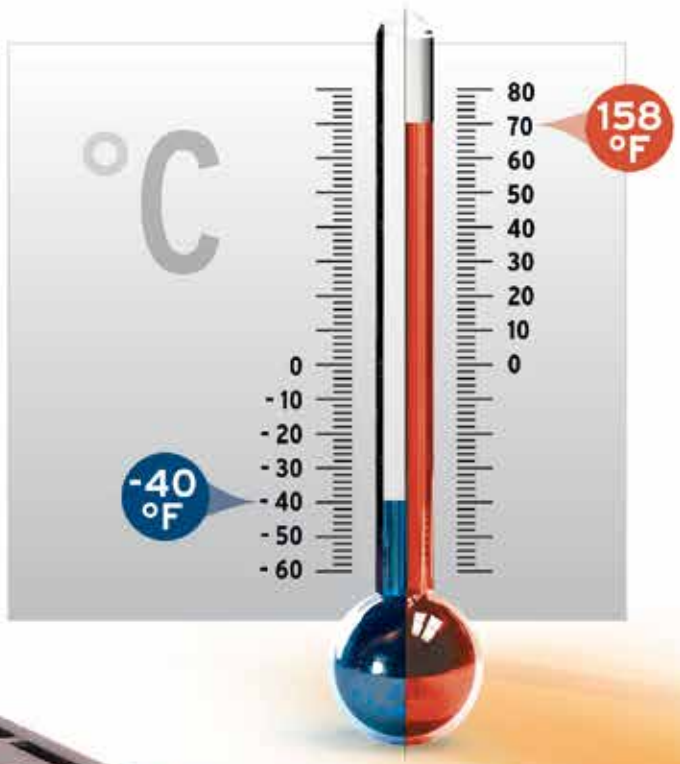
Designed with space saving in mind, the S8VK series is our most compact power-supply offering ever and the most compact series in today's market.

Resistant in tough environments

Wherever the S8VK is installed within the range of the S8VK derating curve, it will provide the same reliable performance for the duration of its service life.

The wide operating temperature range of -40 to 70°C (-40 to 158°F) (S8VK-G/T/R) guarantees stable operation in any environment where other power supplies may start to fail. The robust design advantages don't end there.

The vibration-resistant mounting clip allows the S8VK to withstand up to 5G of shock and vibration, making it an ideal fit for high vibration applications such as stone crushing machinery, conveyor lines, and stamping machines.



The image is for illustration purposes only.

Easy and fast installation

Making your life easier

Simply click onto a standard DIN rail using one hand to mount in a flash. Effortless and time saving! In addition, the S8VK features a double set of DC output terminals (three for the negative terminal), which means you also spend less time and effort on wiring.

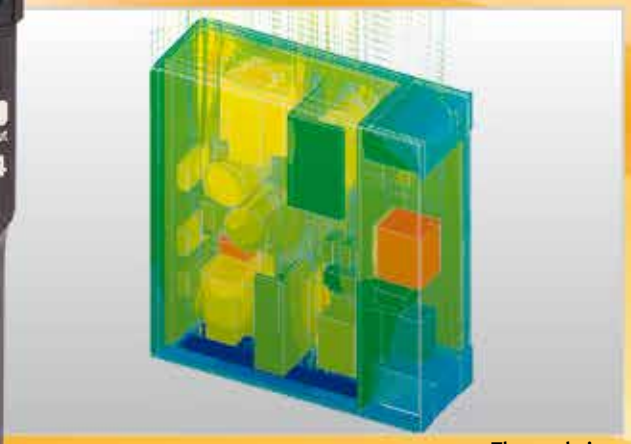
Long-life guaranteed

Designed to international safety standards for global markets, the S8VK even has approvals for marine applications (S8VK-G/T/R) and carries a 5- year warranty on all models no matter which country your machine is exported to! Because of high Mean Time Between Failure (MTBF) figures, your S8VK will keep running in stable condition for a long time.

The most compact class on the market

Designed with downsizing in mind

Omron knows that size is important for machine and panel designers, which is why we used our state of the art thermal simulation for the development of the S8VK series. Using this advanced technology allowed Omron to identify and address critical areas which can reduce product life with the end result being a compact long lasting power supply.



Thermal view

Component view

The S8VK series line up

The perfect match for your needs

To ensure that we have the perfect solution to match every need, Omron offers four different families:

- The cost effective **S8VK-C** line with uncompromising quality.
- The standard **S8VK-G** (single phase) and three phase **S8VK-T**, offering longer lifetime, higher protection and more features.
- The redundancy unit **S8VK-R**, designed for specific applications when you cannot afford a down time situation.

Featuring		Single Phase		Three-Phase	Redundancy Unit
		S8VK-C	S8VK-G	S8VK-T	S8VK-R
INPUT	Single Phase AC	100-240VAC		-	-
	Three Phase AC	-		380-480VAC	-
	DC	90-350VDC		450-600VDC* * Excluding 960 W	5-30VDC,10-60VDC
Operation Temperature		-25°C to 60°C (-13°F to 140°F)	-40°C to 70°C (-40°F to 158°F)		-40°C to 70°C (-40°F to 158°F)
Safety standards		UL 508 (Listing), UL 60950-1 (Recognition) cUL No.107.1, cUR No.60950-1 EN 50178, EN 60950-1		<120W> UL508(Listing),EN50178 <240/480/960W> UL 508 (Listing) UL 60950-1(Recognition) CSA No. 60950-1 cUR No.60950-1 EN 50178, EN 60950-1	UL 508(Listing), UL 60950-1(Recognition) cUL No.107.1, cUR No.60950-1 EN 50178, EN 60950-1
CE		Yes	Yes	Yes	Yes
RoHS		Yes	Yes	Yes	Yes
Marine applications		-	Lloyd's Register		Lloyd's Register
EMI		EN61204-3 EN55011 ClassA	EN61204-3 EN55011 ClassB	EN61204-3 EN55011 ClassB	EN61000-6-3 EN55011 ClassB
Harmonic current emissions		EN61000-3-2(240W/480W)	EN 61000-3-2	EN 61000-3-2	-
Parallel Operation		No	Yes	Yes	-
Additional features		No	Power boost 120%		Redundancy OK LED Voltage Balance LED

Ordering information

S8VK-G series

Type	Power ratings	Input voltage	Output voltage	Output current	Boost current	Size (W × H × D) [mm]	Order code
Power supply Single phase	15 W	100 to 240 VAC, 90 to 350 VDC	5 V	3 A	3.6 A	22.5 × 90 × 90	S8VK-G01505
			12 V	1.2 A	1.44 A		S8VK-G01512
			24 V	0.65 A	0.78 A		S8VK-G01524
	30 W		5 V	5 A	6 A	32 × 90 × 90	S8VK-G03005
			12 V	2.5 A	3 A		S8VK-G03012
			24 V	1.3 A	1.56 A		S8VK-G03024
	60 W		12 V	4.5 A	5.4 A	32 × 90 × 110	S8VK-G06012
			24 V	2.5 A	3 A		S8VK-G06024
	120 W		24 V	5 A	6 A	40 × 125 × 112.2	S8VK-G12024
	240 W		24 V	10 A	12 A	60 × 125 × 140	S8VK-G24024
			48 V	5 A	6 A		S8VK-G24048
	480 W		24 V	20 A	24 A	95 × 125 × 140	S8VK-G48024
			48 V	10 A	12 A		S8VK-G48048

S8VK-C series

Type	Power ratings	Input voltage	Output voltage	Output current	Boost current	Size (W × H × D) [mm]	Order code
Power supply Single phase	60 W	100 to 240 VAC, 90 to 350 VDC	24 V	2.5 A	-	32 × 90 × 110	S8VK-C06024
	120 W		24 V	5 A	-	40 × 125 × 112.2	S8VK-C12024
	240 W		24 V	10 A	-	60 × 125 × 140	S8VK-C24024
	480 W		24 V	20 A	-	95 × 125 × 140	S8VK-C48024

S8VK-T series

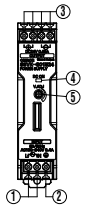
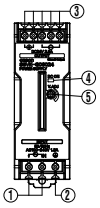
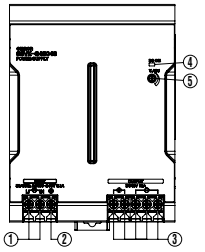
Type	Power ratings	Input voltage	Output voltage	Output current	Boost current	Size (W × H × D) [mm]	Order code
Power supply Three phase	120 W	380 to 480 VAC, 450 to 600 VDC	24 V	5 A	6 A	40 × 125 × 112.2	S8VK-T12024
	240 W		24 V	10 A	12 A	60 × 125 × 140	S8VK-T24024
	480 W		24 V	20 A	24 A	95 × 125 × 140	S8VK-T48024
	960 W	380 to 480 VAC	24 V	40 A	48 A	135 × 125 × 170	S8VK-T96024

S8VK-R series

Type	Current ratings	Input voltage	Output current	Size (W × H × D) [mm]	Order code
Redundancy Module	10 A	5 to 30 VDC	10 A	32 × 90 × 110	S8VK-R10
	20 A	10 to 60 VDC	20 A	40 × 125 × 112.2	S8VK-R20

S8VK-G Nomenclature

15-W Models	30-W / 60-W / 120-W / 240-W Models	480-W Models
S8VK-G015□□	S8VK-G030□□/S8VK-G060□□/S8VK-G12024/S8VK-G240□□	S8VK-G480□□

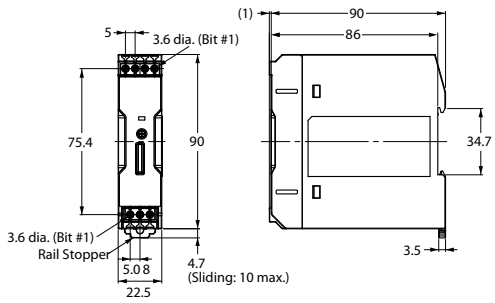
Note: The S8VK-G06024 is shown above.

No.	Name	Function
1	Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (-V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.

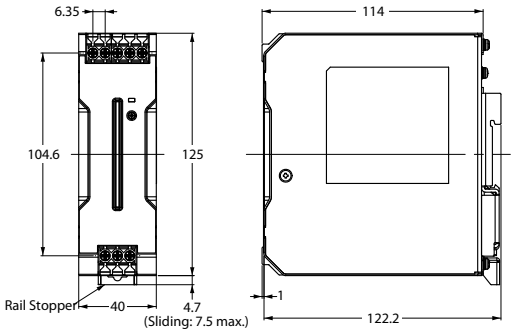
*1. The fuse is located on the (L) side. It is not user-replaceable. For a DC input, connect the positive voltage to the L terminal.
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

S8VK-G Dimensions

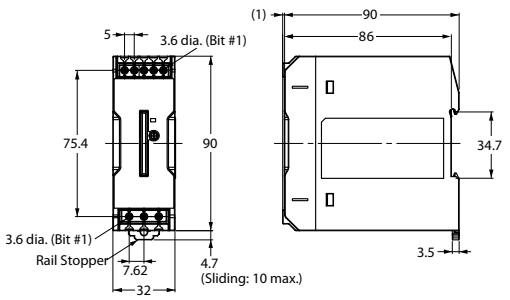
S8VK-G015□□ (15 W)



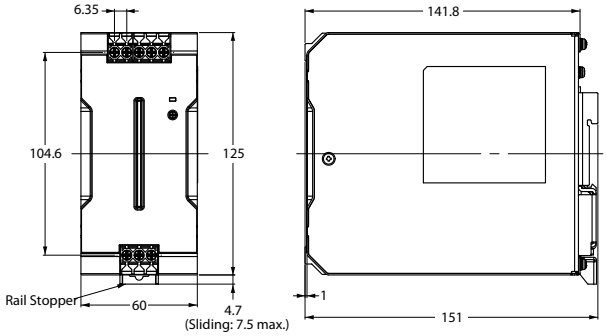
S8VK-G12024 (120 W)



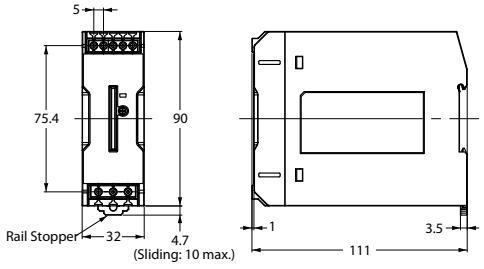
S8VK-G030□□ (30 W)



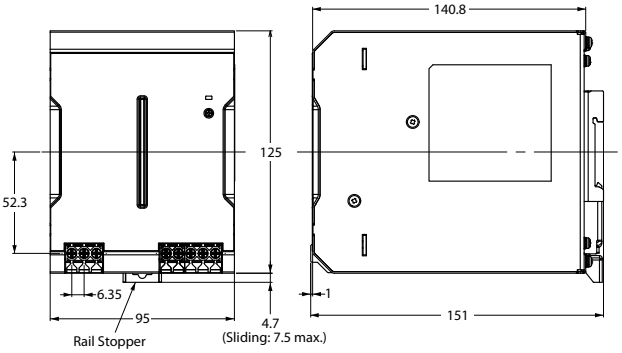
S8VK-G240□□ (240 W)



S8VK-G060□□ (60 W)

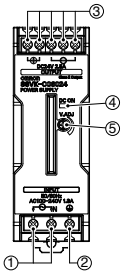


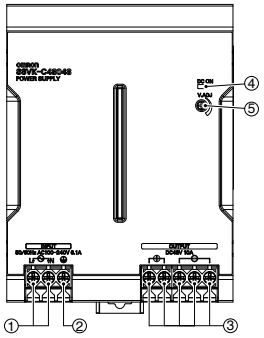
S8VK-G480□□ (480 W)



S8VK-C Nomenclature

60-W/120-W/240-W Models S8VK-C06024/S8VK-C12024/S8VK-C24024	480-W Model S8VK-C48024





Note: The S8VK-C06024 is shown above.

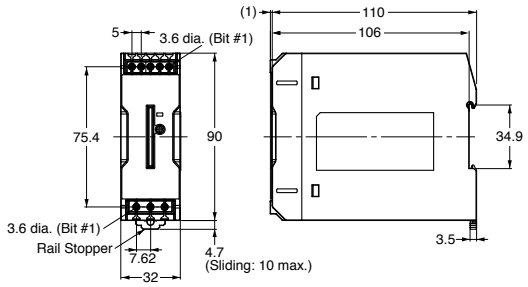
No.	Name	Function
1	Input terminals (L), (N)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (–V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.

*1. The fuse is located on the (L) side. It is not user-replaceable. For a DC input, connect the positive voltage to the L terminal.
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.

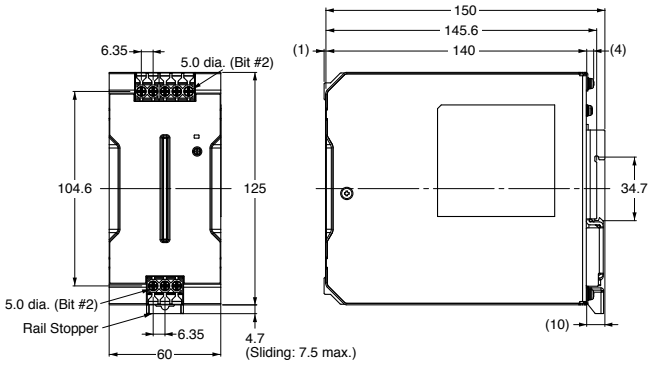
S8VK-C Dimensions

(Unit: mm)

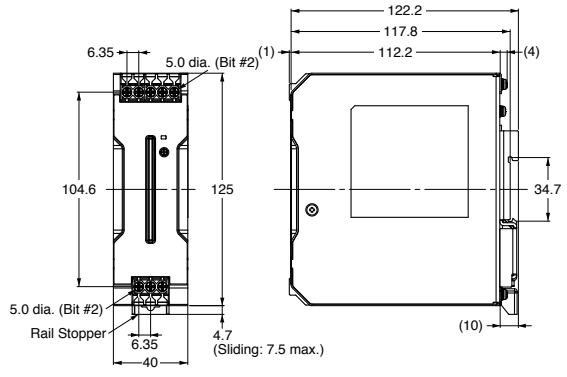
S8VK-C06024 (60 W)



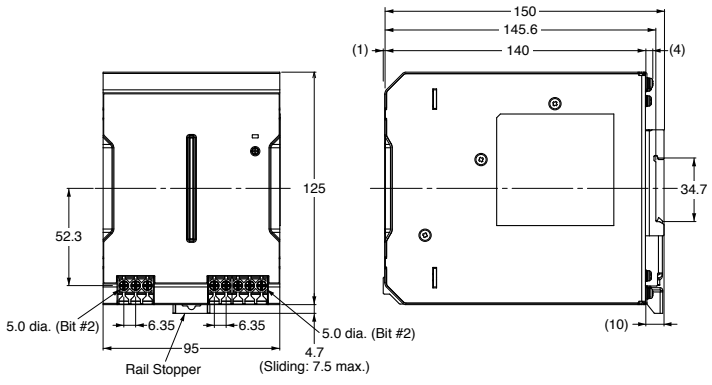
S8VK-C24024 (240 W)



S8VK-C12024 (120 W)

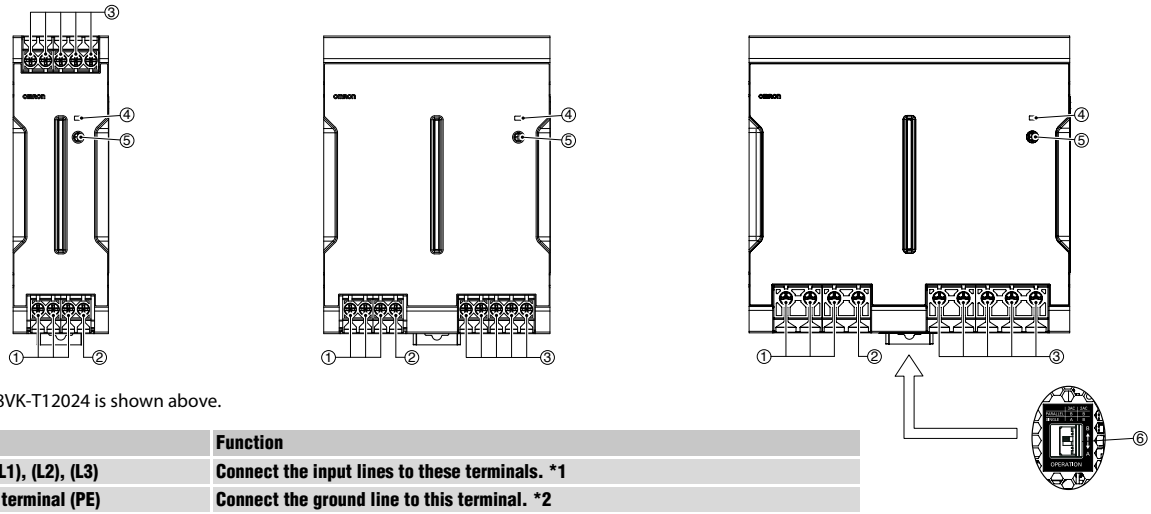


S8VK-C48024 (480 W)



S8VK-T Nomenclature

120-W/240-W Models	480-W Model	960-W Model
S8VK-T12024/S8VK-T24024	S8VK-T48024	S8VK-T96024



Note: The S8VK-T12024 is shown above.

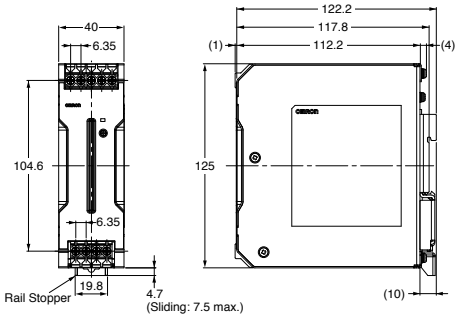
No.	Name	Function
1	Input terminals (L1), (L2), (L3)	Connect the input lines to these terminals. *1
2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2
3	DC Output terminals (–V), (+V)	Connect the load lines to these terminals.
4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.
5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage.
6	Operation Switch *3*4	To operate in parallel or 2-phase input, set the switch to the "B" side. (960 W model only).

*1. For wiring, refer to page 13 of the S8VK-T Datasheet (Cat. No. T061).
*2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.
*3. For parallel operation, refer to page 15 of the S8VK-T Datasheet (Cat. No. T061).
*4. For 2-phase input, refer to page 15 of the S8VK-T Datasheet (Cat. No. T061).

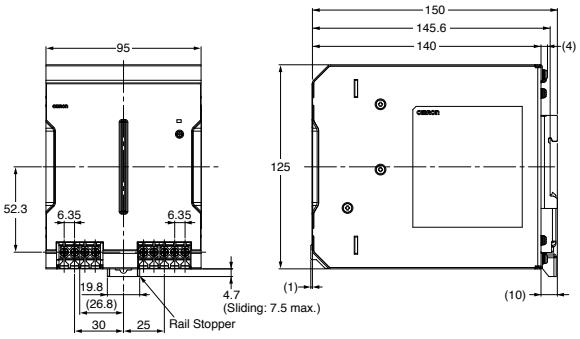
S8VK-T Dimensions

(Unit: mm)

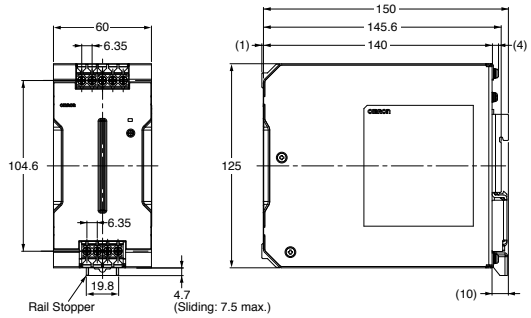
S8VK-T12024 (120 W)



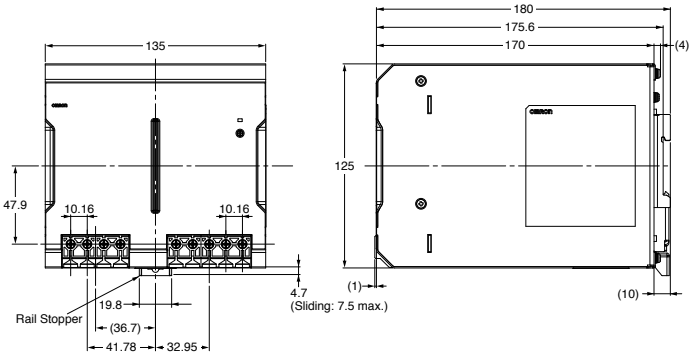
S8VK-T48024 (480 W)



S8VK-T24024 (240 W)

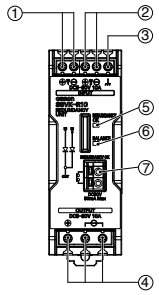


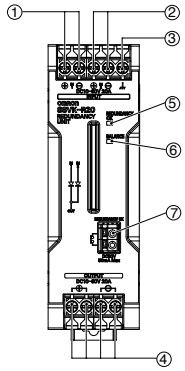
S8VK-T96024 (960 W)



S8VK-R Nomenclature

10 A Model S8VK-R10	20 A Model S8VK-R20



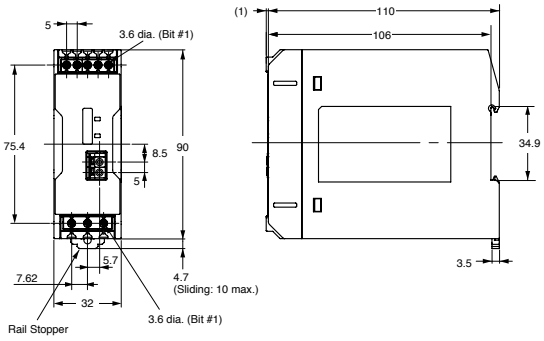


No.	Name	Function
1	Input terminal 1	Connect the input 1 lines to these terminals.
2	Input terminal 2	Connect the input 2 lines to these terminals.
3	⏚ terminal	This is not a ground terminal. There are no functional or safety concerns even if you do not connect it to ground.
4	Output terminal	Connect the load lines to these terminals.
5	Status indicator (redundancy OK: Green)	Lighting: Voltage difference between Vin1 and Vin2 is less than 2.4 V typ.
6	Status indicator (voltage balance: Green)	Lighting: Voltage difference between Vin1 and Vin2 is less than 50 mV typ.
7	Status contact (redundancy OK: photo switch)	Photo switch contact ON: Voltage difference between Vin1 and Vin2 is less than 2.4 V typ.

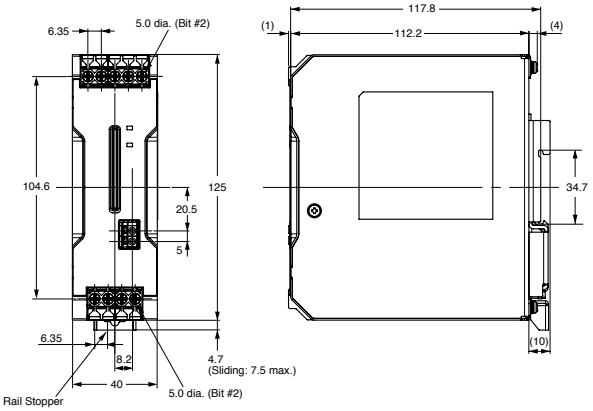
S8VK-R Dimensions

(Unit: mm)

S8VK-R10



S8VK-R20



Note: Refer to the S8VK-G Datasheet (Cat. No. T056) for details.
Refer to the S8VK-C Datasheet (Cat. No. T058) for details.
Refer to the S8VK-R Datasheet (Cat. No. T059) for details.
Refer to the S8VK-T Datasheet (Cat. No. T061) for details.

OMRON AUTOMATION AND SAFETY • THE AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • www.omron247.com

OMRON CANADA, INC. • HEAD OFFICE
Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • www.omron247.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE
México DF • 52.55.59.01.43.00 • 01-800-226-6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE
Apodaca, N.L. • 52.81.11.56.99.20 • 01-800-226-6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE
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OMRON EUROPE B.V. • Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. • +31 (0) 23 568 13 00 • www.industrial.omron.eu

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