



**VARIATEURS TRIPHASES A  
COMMANDE PROPORTIONNELLE 0 - 10V  
/ THREE PHASE CONTROLLE WITH  
PROPORTIONAL CONTROL 0 - 10V**

# SWG8

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG81510</b>	<b>3 x 400VAC</b>	<b>20kWatts</b>	0-10V
<b>SWG82710</b>	<b>3 x 400VAC</b>	<b>27kWatts</b>	0-10V
<b>SWG83610</b>	<b>3 x 400VAC</b>	<b>36kWatts</b>	0-10V
<b>SWG84210</b>	<b>3 x 400VAC</b>	<b>42kWatts</b>	0-10V
<b>SWG84810</b>	<b>3 x 400VAC</b>	<b>48kWatts</b>	0-10V
<b>SWG86010</b>	<b>3 x 400VAC</b>	<b>60kWatts</b>	0-10V
<b>SWG88010</b>	<b>3 x 400VAC</b>	<b>80kWatts</b>	0-10V

En associant un variateur monophasé à commande proportionnelle de type SG5/SW5 et des relais statiques biphasés ou triphasés standards à commande alternative, il devient possible à partir d'une entrée analogique 0-10V isolée du secteur de faire varier proportionnellement à cette entrée, le rapport cyclique de fonctionnement d'une charge résistive triphasée (AC-51).

*With one analogical controller in association with AC control solid state relays, it is possible with a 0-10VDC analogical control to adjust the power of a three phase resistive load (AC-51) up to 80 Kwatts on 3 x 400VAC mains.*

**Caractéristiques de transfert entrée/sortie /**  
**Input/output transfer characteristics**

commande en 0-10V:

$$t/T = V_e \times 10 \text{ (} V_e \text{ en Volts - } t/T \text{ en \% )}$$

T = période    t = temps de conduction

exemple :

$$V_e = 0 \text{ Volt } \quad t/T = 0\%$$

$$V_e = 5 \text{ Volts } \quad t/T = 50\%$$

$$V_e = 10 \text{ Volts } \quad t/T = 100\%$$

0-10V control:

$$t/T = V_e \times 10 \text{ (} V_e \text{ in Volts - } t/T \text{ in \% )}$$

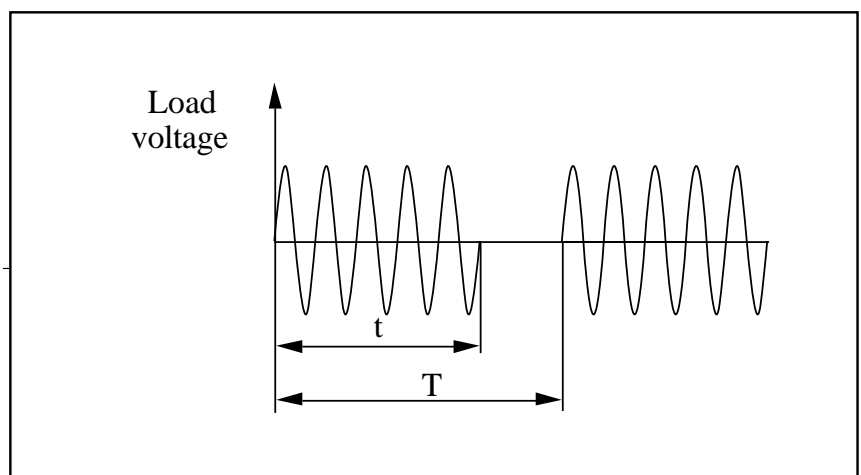
T = period    t = conduction time

example :

$$V_e = 0 \text{ Volt } \quad t/T = 0\%$$

$$V_e = 5 \text{ Volts } \quad t/T = 50\%$$

$$V_e = 10 \text{ Volts } \quad t/T = 100\%$$



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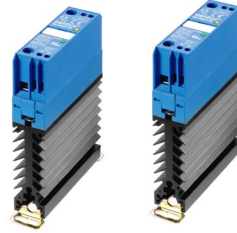
**20KW**

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG81510</b>	<b>3 x 400VAC</b>	<b>20kWatts</b>	0-10V

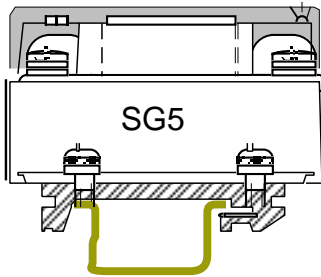


**SWG50210**

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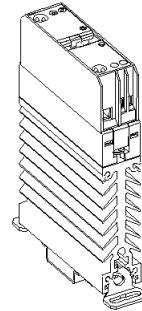
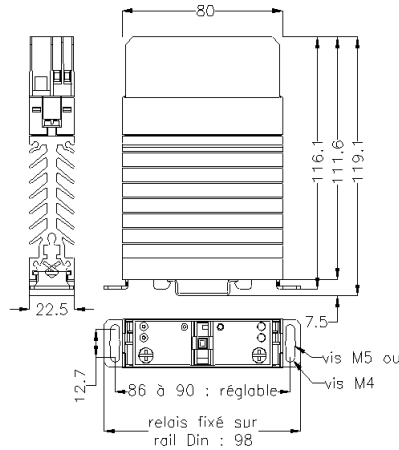


**2xSIL865970**

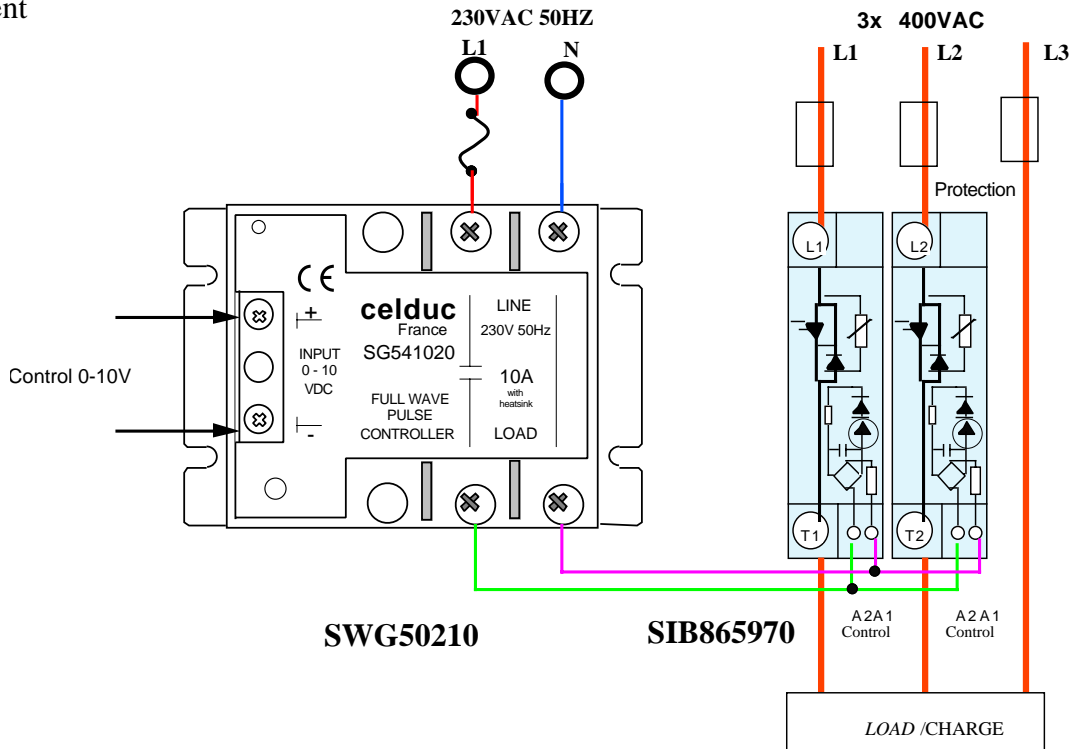


**SWG50210**

L= 100mm h = 74mm p = 56mm



**Raccordement**



ISO 9001  
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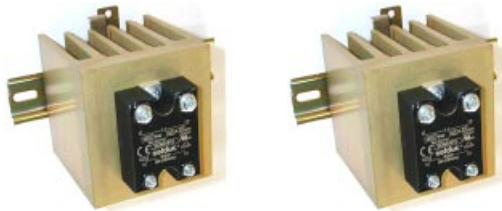
**27KW**

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG82710</b>	<b>3 x 400VAC</b>	<b>27kWatts</b>	0-10V

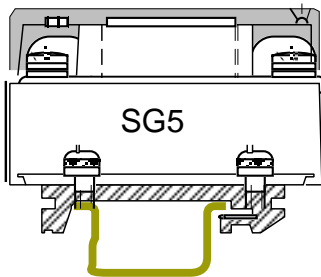


**SWG50210**

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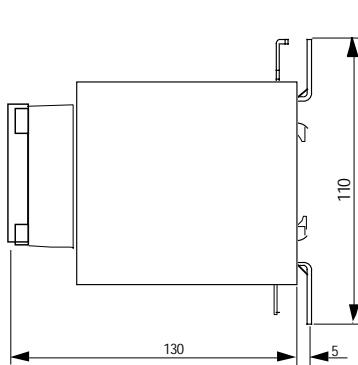


**2 x SC864910 + WF131100**

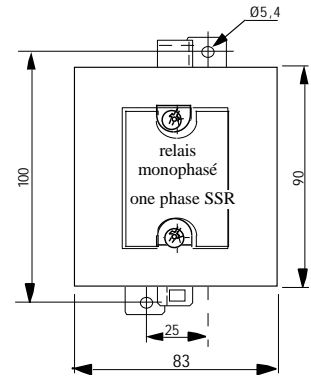


**SWG50210**

L= 100mm h = 74mm p = 56mm

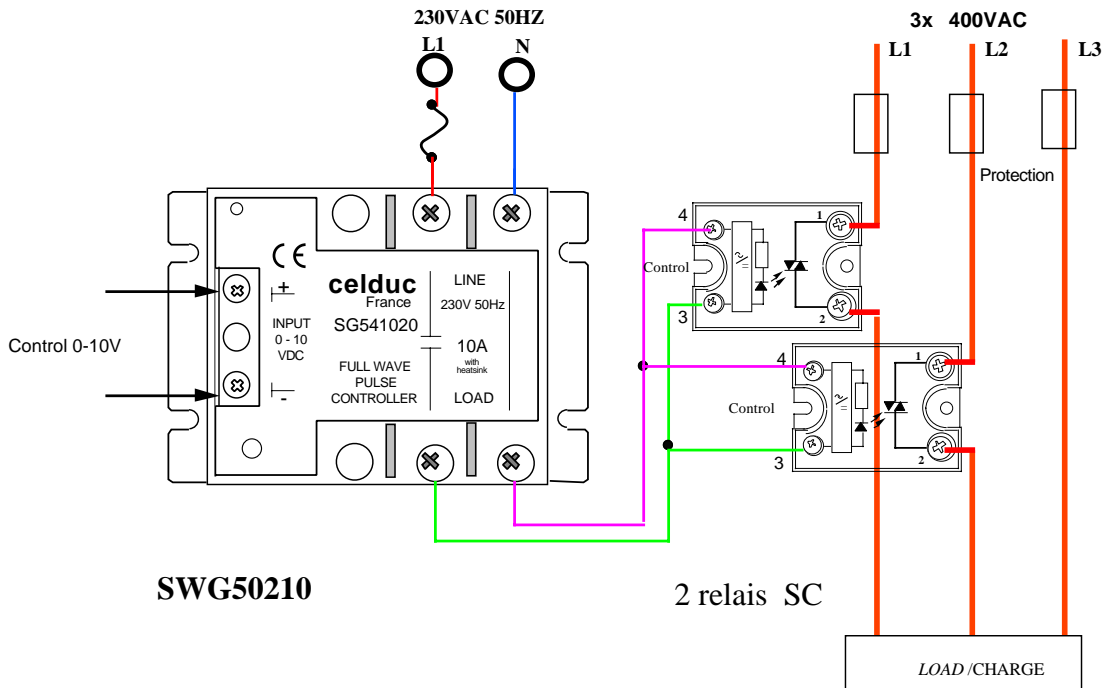


**SC864910 + WF131100**



L= 83mm h = 100mm p = 130mm

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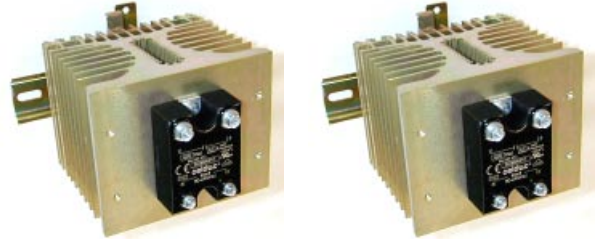
**36KW**  
**42KW**  
**48KW**

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG83610</b>	<b>3 x 400VAC</b>	<b>36kWatts</b>	0-10V
<b>SWG84210</b>	<b>3 x 400VAC</b>	<b>42kWatts</b>	0-10V
<b>SWG84810</b>	<b>3 x 400VAC</b>	<b>48kWatts</b>	0-10V

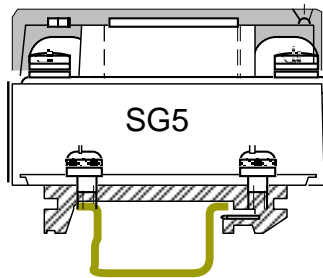


**SWG50210**

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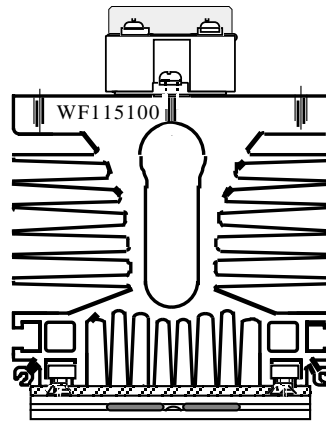


**2 x SC86x910 + WF115100**



**SWG50210**

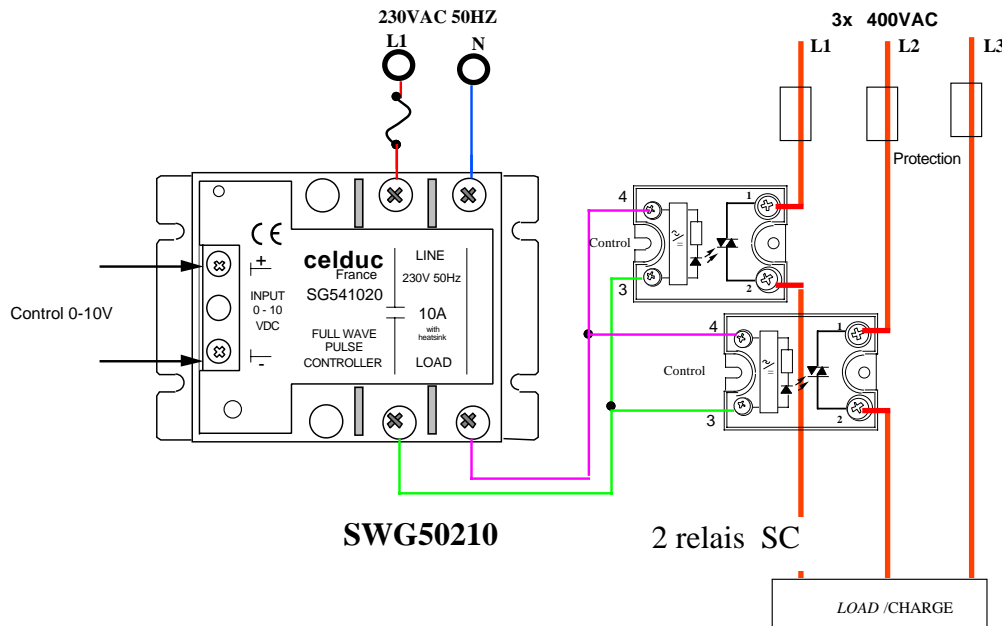
L = 100mm h = 74mm p = 56mm



L = 110mm  
h = 110mm  
p = 154mm

**Raccordement**

<b>SWG83610</b>	<b>SC867910 + WF115100</b>
<b>SWG84210</b>	<b>SC868910 + WF115100</b>
<b>SWG84810</b>	<b>SC869910 + WF115100</b>



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**60KW**

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG86010</b>	<b>3 x 400VAC</b>	<b>60kWatts</b>	0-10V

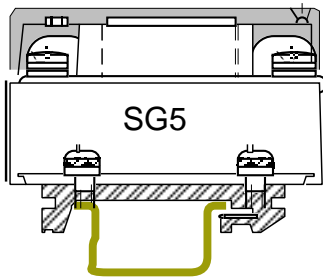


**SWG50210**

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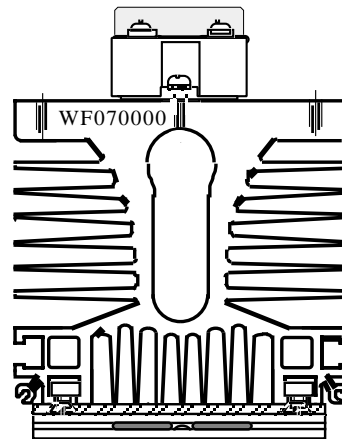


**2 x SC869910 + WF070000**



**SWG50210**

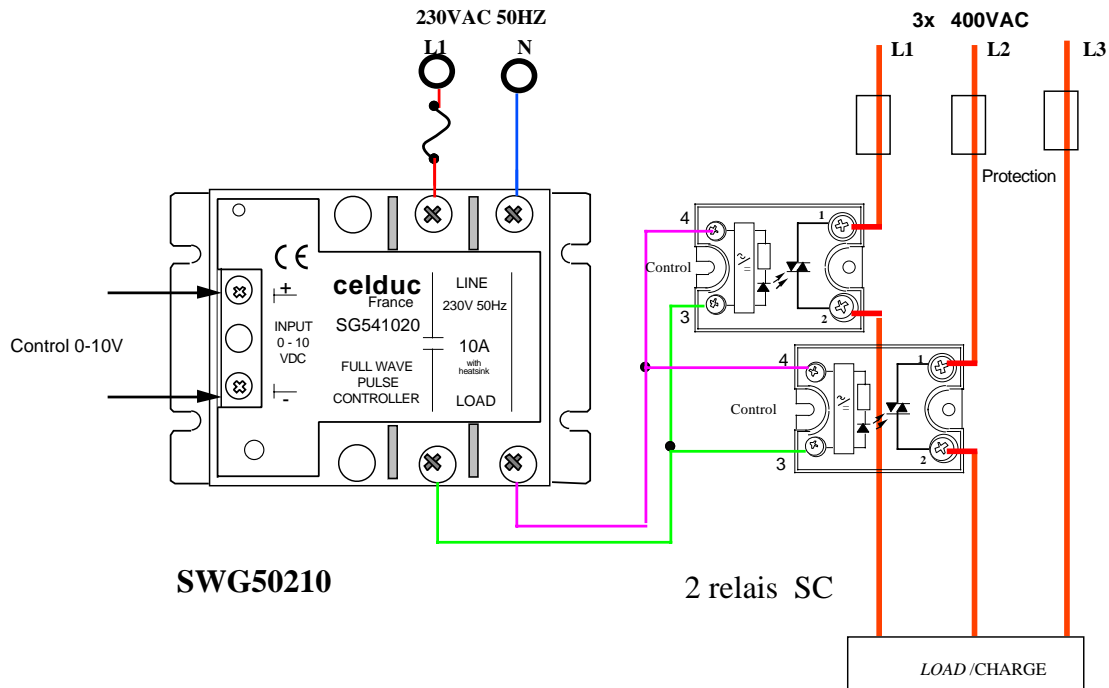
L= 100mm h = 74mm p = 56mm



L= 110mm  
h = 100mm  
p = 154mm

**Raccordement**

**SC869910 + WF070000**



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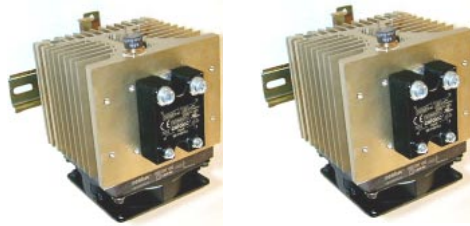
**80KW**

REFERENCE	OUTPUT VOLTAGE	Puissance charge/Load	CONTROL
<b>SWG88010</b>	<b>3 x 400VAC</b>	<b>80kWatts</b>	0-10V

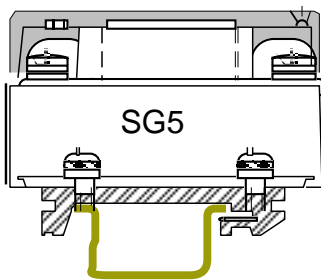


**SWG50210**

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**2 x SC869910 + WF031100**

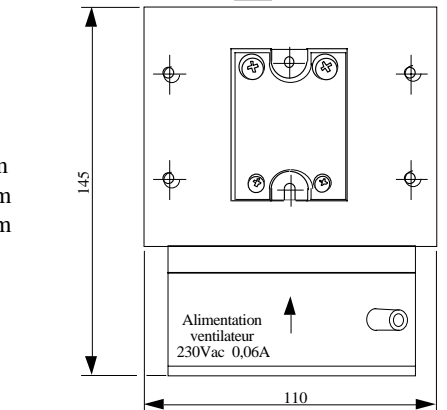
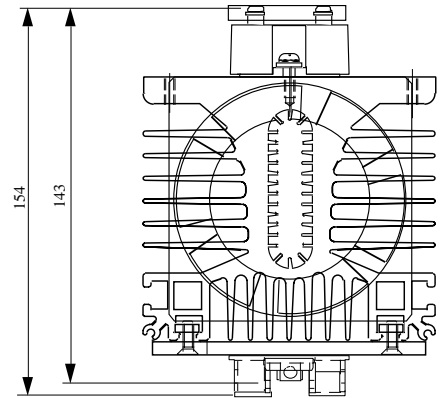


**SWG50210**

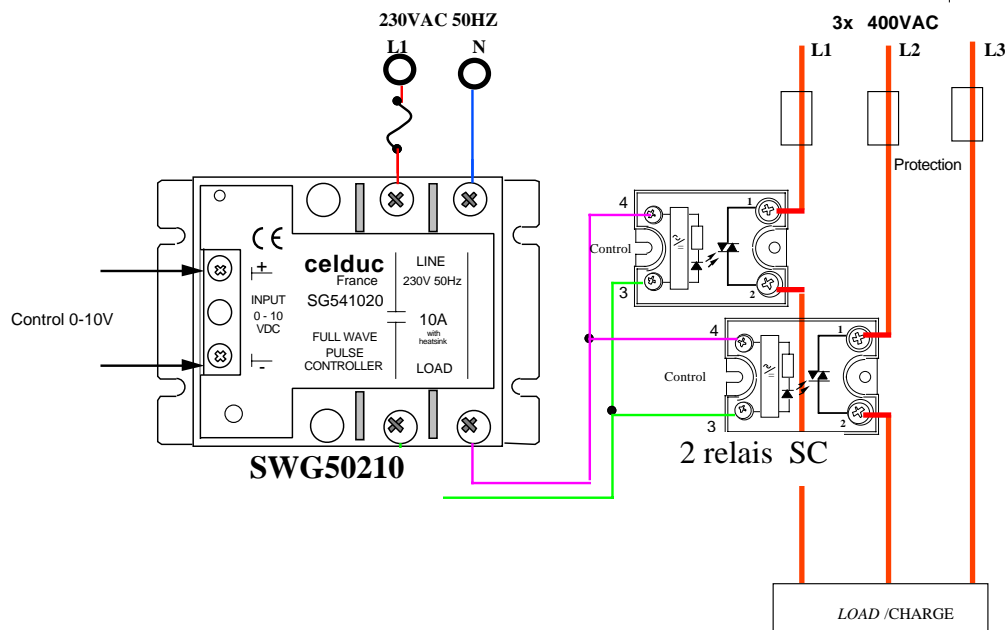
L= 100mm h = 74mm p = 56mm

**SC869910  
+  
WF031100**

L= 110mm  
h = 145mm  
p = 154mm



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**Caractéristiques de commande (à 20°C) / Control characteristics (at 20°C)**

Paramètre / Parameter	Symbol	INPUT	Unit
Tension de commande / Control voltage	Uc	<b>0-10V</b>	V
Courant de commande / Control current (@ U <sub>c</sub> )	Ic	0,04 @10V	mA
Résistance interne / Input internal resistor fig.1	Rc	250	KΩ

**Caractéristiques interface SWG5 / relais statiques (à 20°C) / Interface between controller and SSRs (at 20°C)**

Plage tension de fonctionnement / Operating range	Uemin-max	115-253	VRMS
Courant alimentation sous 230VAC/ Current with 230VAC	I (230VAC)	<100mA	VRMS

**Caractéristiques d'entrée-sortie (à 20°C) / Input-output characteristics (at 20°C)**

Isolement entrée-sortie/Input-output isolation @500m	Ui	2500	VRMS
Isolement sortie-semelle/Output-case isolation @500m	Ui	2500	VRMS
Tension assignée Isolement/Rated impulse voltage	Uimp	4000	V

**Caractéristiques générales / General characteristics**

Paramètre / Parameter	Conditions	Symbol	Typ.	Unit
Plage de température de stockage / Storage temperature range			-40 / +100	°C
Plage de température de fonctionnement/Operating temperature range			-25 / +85	°C

**Caractéristiques de sortie(à 20°C) / Output characteristics (at 20°C)**

Paramètre / Parameter	Symbol	SWG81510 SWG82710	SWG83610	SWG84210	SWG84810 SWG86010 SWG88010	Unit
Tension de charge / Load voltage	Ue	400	400	400	400	V rms
Plage tension de fonctionnement / Operating range	Ue min-max	24-520	24-520	24-520	24-520	V rms
Tension crête / Peak voltage	Up	1200	1200	1200	1200	V
Niveau de synchronisation / Synchronizing level	U <sub>sync</sub>	12	12	12	12	V
Tension d'amorçage / Latching voltage	Ua	10	10	10	10	V
Puissance maximale de la charge AC-51 (400VAC 50hz)/ Max AC-51 load	P (AC-51)	<b>15</b> <b>27</b>	<b>36</b>	<b>42</b>	<b>48</b> <b>60</b> <b>80</b>	
Courant de surcharge non répétitif /Non repetitive overload current	I <sub>tsm</sub>	550	1000	1500	2000	A
Chute tension directe crête/ On state voltage drop	Vd	1,3	1,3	1,3	1,3	V
Courant de fuite état bloqué/ Off state leakage current	I <sub>lk</sub>	<3	<3	<3	<3	mA
Courant de charge minimum / Minimum load current	I <sub>e min</sub>	5	5	5	5	mA
Temps de fermeture/ Turn on time	ton max	30	30	30	30	ms
Temps d'ouverture/ Turn off time	toff max	30	30	30	30	ms
Plage de fréquence / Operating frequency range	f	0,1-440	0,1-440	0,1-440	0,1-440	Hz
dv/dt état bloqué / Off state dv/dt	dv/dt	500	500	500	500	V/μs
dI/dt maximum non répétitif/ Maximum di/dt non repetitive	di/dt	50	50	50	50	A/μs
I <sup>2</sup> <sub>t</sub> (<10ms)	I <sup>2</sup> <sub>t</sub>	1500	5000	11000	20000	A <sup>2</sup> s
EMC Test d'immunité conduite / Conducted immunity level		2kV criterion A				
EMC Test d'immunité conduite / Conducted immunity level		2kV crit.A with external VDR				

**Caractéristiques de sortie(à 20°C) / Output characteristics (at 20°C)**

Paramètre / Parameter	
Commande /control	0-10V
Temps de cycle /cycle time	2s +/- 20% so 100 cycle at 50 Hz
Précision /precision	-2 /+1 period
Linéarité /linearity	±1 period



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