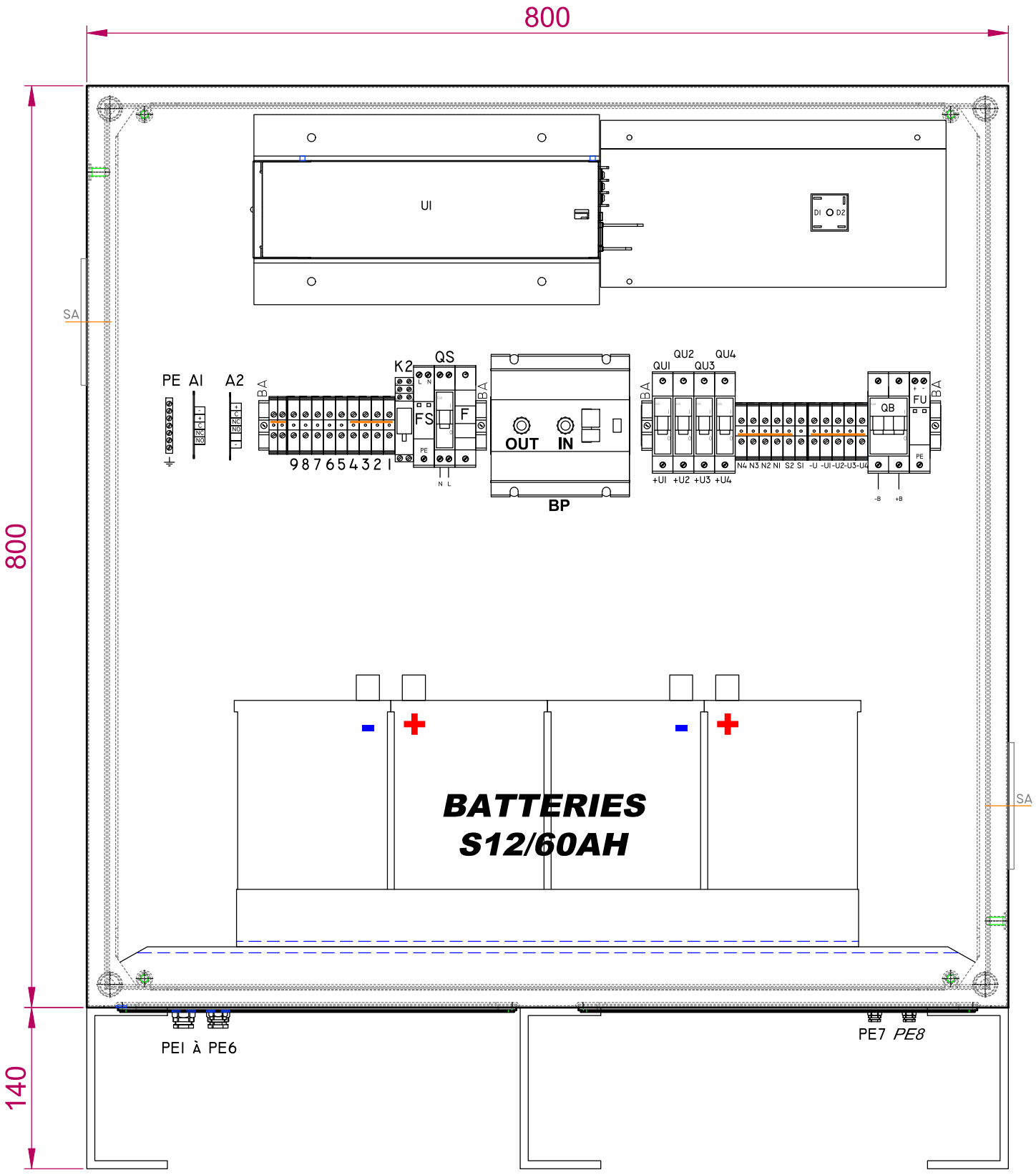
COFFRET « ALIMENTATION »

48Vdc 1600W

4 Lampes Flash 7A

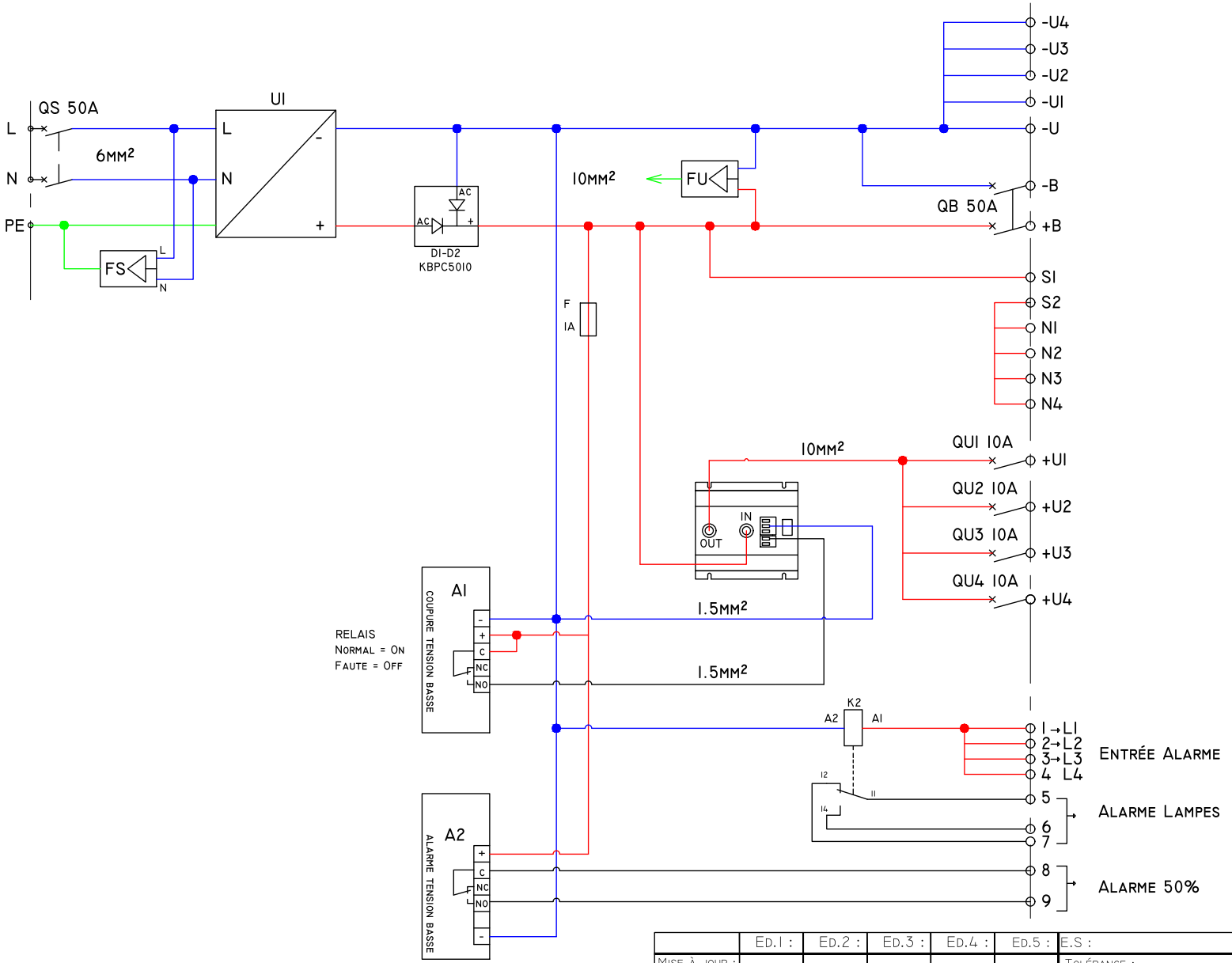
113958-RW
23.9547

OBSTA
2 Rue Troyon
92316 Sèvres
France
http://www.obsta.com

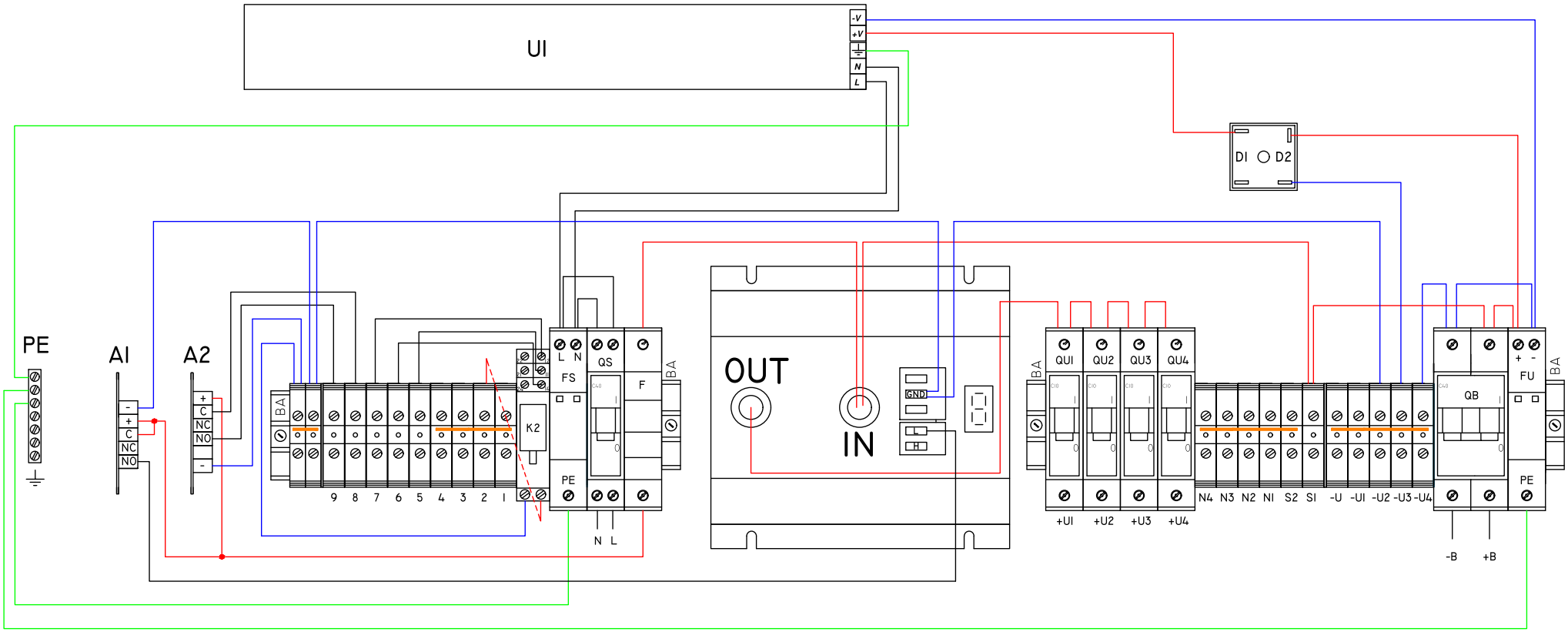


COFFRET "ALIMENTATION" 48V 1600W	HAUTEUR: 800MM LARGEUR: 800MM PROFONDEUR: 300MM POIDS: 124KG

	Ed.1:	Ed.2:	Ed.3:	Ed.4:	Ed.5:	E.S:	ECHELLE / *SCALE:* 1:4 EN A4
MISE A JOUR: *UPDATE:*	16.03.23					TOLERANCE: ISO 2768-M *TOLERANCE:*	FORMAT: A3-H *SIZE:*
DESSINE PAR: *DRAW BY:*	S.SANTOS					FOLIO 1/1	
VERIFIE PAR: *APPROVED BY:*	T.LOISELLE						
COFFRET ALIMENTATION 48Vdc 1600Wc							113958-RW PE1



	ED.1 :	ED.2 :	ED.3 :	ED.4 :	ED.5 :	E.S :	ECHELLE / SCALE :
MISE À JOUR : UPDATE :	21/03/23					TOLÉRANCE : TOLERANCE : ISO 2768-M	FORMAT : SIZE : A3-H
DESSINÉ PAR : DRAW BY :						FOLIO 2/2	**P1**
VÉRIFIÉ PAR : APPROVED BY :	T.LOISELLE						
ALIMENTATION SECOURUE 48VDC 1600W 60AH							**Code 113958-RW**



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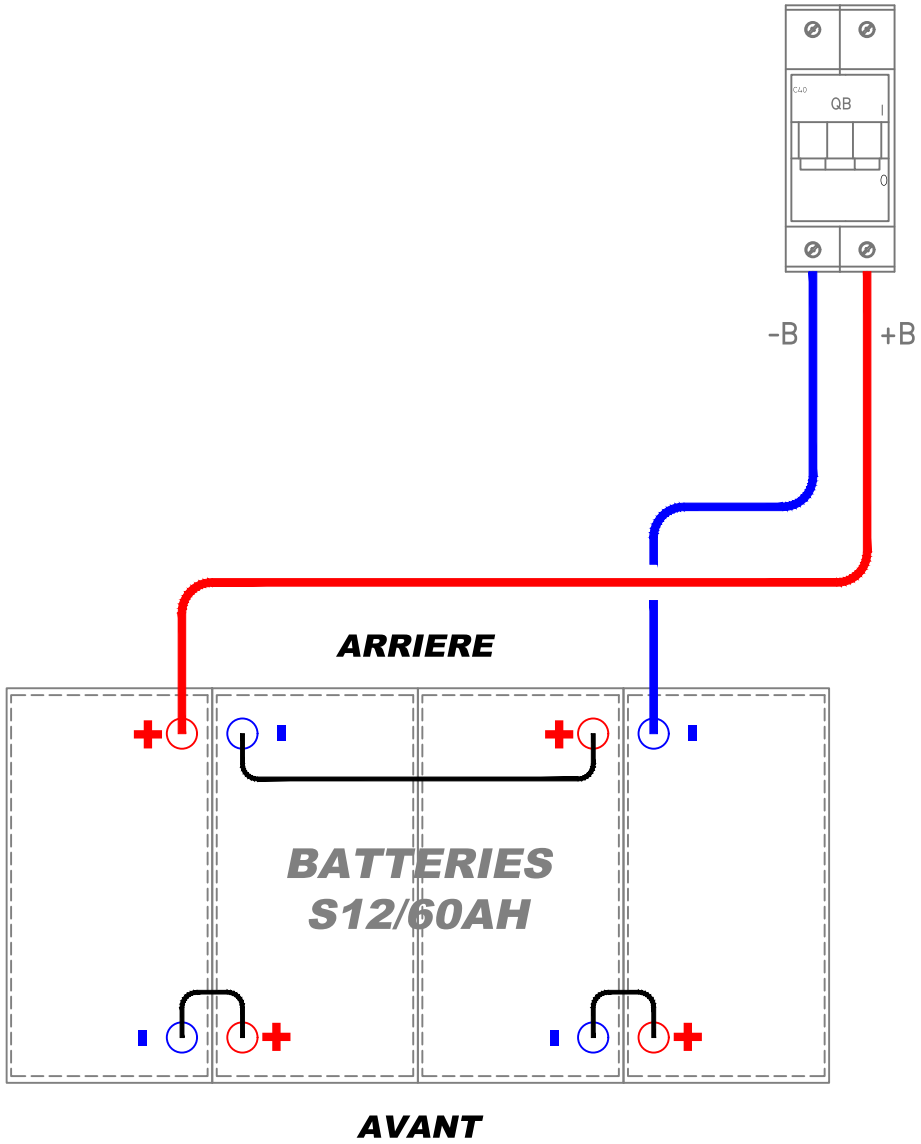
Mise à jour : *Update :*	21/03/23					Tolérance : *Tolerance :* ISO 2768-m	Format : *Size :* A3-H
Dessiné par : *Draw by :*						Folio	**P2**
Vérifié par : *Approved by :*	T.LOISELLE					1/2	
Alimentation Secourue 48Vdc 1600W 60Ah							**Code 113958-RW**



	Ed.1:	Ed.2:	Ed.3:	Ed.4:	Ed.5:	E.S:	ECHELLE / *SCALE*: 1:4 EN A4
MISE A JOUR: *UPDATE:*	16.03.23					TOLERANCE: ISO 2768-M *TOLERANCE:*	FORMAT: A4-V *SIZE:*
DESSINE PAR: *DRAW BY:*	S.SANTOS					FOLIO 1/1	
VERIFIE PAR: *APPROVED BY:*	T.LOISELLE						
COFFRET ALIMENTATION 48Vdc 1600Wc							**113958-RW P3**

B	4	**Batterie**	S12/60A	*Battery*	SONNENSCHEIN	
	1	**Rail DIN**	35x15 Long. 260 mm	*DIN Rail*	ERICO	
	1	**Rail DIN**	35x15 Long. 185 mm	*DIN Rail*	ERICO	
	3	**Flasque d'xetrémité ES4**	1SNK 505 910 R0000	*Protection Terminal*	ENTRELEC	
PE	1	**Barrette de masse**	5 plots	*Earth Bar*	ABB	
U1	1	**Alimentation 48Vdc 1600W**	RSP-1600	*48Vdc 1600W Power*	MEAN WELL	
D1 - D2	1	**Pont de Diode**	KBPC 5010	*Diode Bridge*	UR	
BP	1	**Protection Batterie**	BP48-100	*Battery protect*	VICTRON	
FU	1	**Parafoudre**	DS230 - 48Vdc	*Lighting Protection*	CITEL	
K2	1	**Etrier Relais**	1SVR405659R0000	*Relay Holder*	ABB	
K2	1	**Relais d'interface enfichable**	CR-P048DC2 1SVR405601R6000	*Pluggable interface relay*	ABB	
K2	1	**Socle Relais**	CR-PLS 1SVR405650R0000	*Relay*	ABB	
FS	1	**Parafoudre**	DS240-230/G	*Lighting Protection*	CITEL	
F	1	**Fusible 8x32 1A**	420501	*Fuse 8x32*	DF ELECTRIC	
F	1	**Sectionneur Fusible PMX 8 x 32**	4850001	*Fuse Holder PMX 8x32*	DF ELECTRIC	
A2	2	**Guide Carte**	VMCG-90-MPBX-K	*Card Guide*	RS	
A2	1	**Carte RVm Alarme Tension basse**	RV 1521-1	*RVU Card*	SOLARCOM	
A1	2	**Guide Carte**	VMCG-90-MPBX-K	*Card Guide*	RS	
A1	1	**Carte RVU Coupure Tension basse**	RV 1521-3	*RVU Card*	SOLARCOM	
QU1 à QU4	4	**Disjoncteur 10A 1P**	IC60N A9F77110	*Circuit Breaker 10A*	SCHNEIDER	
QB	1	**Disjoncteur 2P 50A**	IC60N A9F76250	*Circuit Breaker 2P 50A*	SCHNEIDER	
QS	1	**Disjoncteur Ph+N C40**	IDT40T A9P22640	*Circuit Breaker Ph+ N C40*	SCHNEIDER	
	2	**Jumper bar JB10-5**	1SNK 910 305 R0000	*Jumper bar JB10-5*	ENTRELEC	
N1 à N4 S1 & S2 - U à - U4	11	**Borne ZS16**	1SNK 510 010 R0000	*Terminal ZS16*	ENTRELEC	
	1	**Jumper bar JB8-4**	1SNK 908 304 R0000	*Jumper bar JB8-4*	ENTRELEC	
1 à 9	9	**Borne ZS10**	1SNK 508 010 R0000	*Terminal ZS10*	ENTRELEC	
	1	**Jumper bar JB6-2**	1SNK 908 302 R0000	*Jumper bar JB6-2*	ENTRELEC	
	2	**Borne ZS6**	1SNK 506 010 R0000	*Terminal ZS6*	ENTRELEC	
BA	4	**Butée d'arrêt BAM4**	1SNK 900 001 R0000	*Terminal Block*	ENTRELEC	
PE7 / PE8	2	**Presse étoupe PG9**	ISM71501	*Cable gland PG9*	SCHNEIDER	
PE6	1	**Presse étoupe PG11**	ISM71502	*Cable gland PG11*	SCHNEIDER	
PE1 à PE5	5	**Presse étoupe PG13**	ISM71503	*Cable gland PG13*	SCHNEIDER	
SA	2	**Grille de Ventilation**	LM 10 10 G	*Ventilation grid*	NICOLL	
ENV	1	**Coffret MAS0808030R5**	800 X 800 X 300	*Steel box*	NVENT	
Repère	**Nb**	**Désignation**	**Référence**	***Désignation***	**Fournisseur**	**PP**

MISE A JOUR: *UPDATE:*	**Ed1: 21/03/23**	**Ed2:**	**Ed3:**	**Ed4:**	**Ed5:**	**E.S.**	**FORMAT: A4** *SIZE:*	
ETABLI PAR: *DRAFT BY:*	S.SANTOS					**FOLIO**		
VERIFIE PAR: *APPROVED BY:*	T.LOISELLE					**1/1**		

COFFRET ALIMENTATION 48Vdc 1600W

113958-RW - N

1600W Power Supply with Single Output

RSP-1600 series

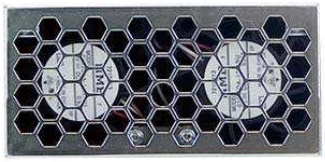
Dimension

L	*	W	*	H	
300	*	85	*	41 (1U)	mm
11.8	*	3.35	*	1.61 (1U)	inch

Front

User's Manual

Back



R33100 RoHS CNS14336-1 | UL62368-1 | BS EN/EN62368-1 | TPTC004 | IEC62368-1

Industrial | Automate | Telecom | Network | EV

Features

- Universal AC input / Full range (Withstand 300VAC surge input for 5 seconds)
- Built-in active PFC function
- High efficiency up to 93%
- Forced air cooling by built-in DC fan
- Output voltage and constant current level programmable
- Active current sharing up to 9600W (5+1)
- Built-in remote ON-OFF control / remote sense / auxiliary power / DC OK signal / OTP alarm signal
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional PMBus or CANBus protocol
- 5 years warranty

Applications

- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Aging facility
- Digital broadcasting
- Constant current source
- Redundant system

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

RSP-1600 is a 1.6KW single output enclosed type AC/DC power supply with a 1U low profile and a high power density up to 25W/inch³. This series operates for 90~264VAC input voltage and offers the models with the DC output mostly demanded from the industry. Each model is cooled by the thermostatically controlled fan. Moreover, RSP-1600 provides vast design flexibility by equipping various built-in functions such as the output programming, active current sharing, remote ON-OFF control, auxiliary power, etc.

Model Encoding / Order Information

RSP - 1600 - 48 □

- □ — Communication protocol option
- 48 — Output voltage (12V/24V/27V/36V/48V)
- 1600 — Output wattage
- RSP — Series name

Type	Communication Protocol	Note
Blank	None	In Stock
PM	PMBus protocol	By request
CAN	CANBus protocol	By request

SPECIFICATION

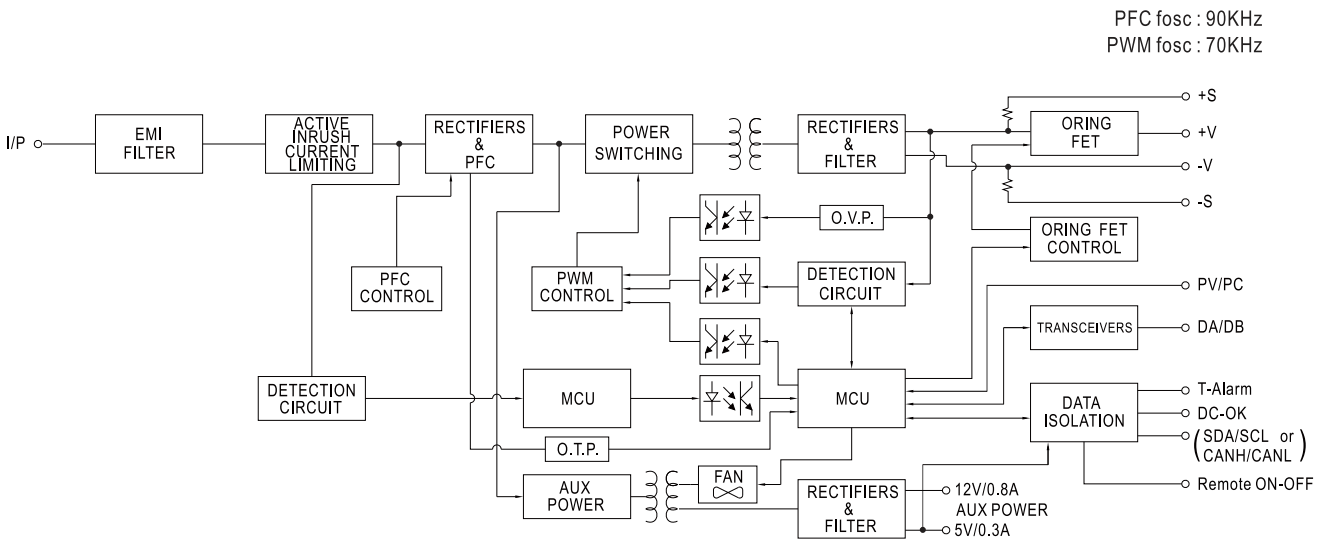
MODEL		RSP-1600-12	RSP-1600-24	RSP-1600-27	RSP-1600-36	RSP-1600-48
OUTPUT	DC VOLTAGE	12V	24V	27V	36V	48V
	RATED CURRENT	125A	67A	59A	44.5A	33.5A
	CURRENT RANGE	0 ~ 125A	0 ~ 67A	0 ~ 59A	0 ~ 44.5A	0 ~ 33.5A
	RATED POWER	1500W	1608W	1593W	1602W	1608W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	200mVp-p	200mVp-p	250mVp-p	300mVp-p
	VOLTAGE ADJ. RANGE	11.5 ~ 15V	23.5 ~ 30V	26.5 ~ 33.5V	35.5 ~ 45V	47.5 ~ 58.8V
	VOLTAGE TOLERANCE Note.4	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1500ms, 60ms/230VAC at full load				
	HOLD UP TIME (Typ.)	16ms / 230VAC at 75% load	10ms / 230VAC at full load			
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC	250 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	0.97/230VAC at full load				
	EFFICIENCY (Typ.)	89%	91.5%	92%	92%	93%
	AC CURRENT (Typ.) Note.5	14A/115VAC 8A/230VAC	15A/115VAC 8.5A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 35A/230VAC				
	LEAKAGE CURRENT	<2mA / 230VAC				
PROTECTION	OVERLOAD	105 ~ 115% rated current				
		Protection type : Constant current limiting, shut down O/P voltage after 5 sec. After O/P voltage falls, re-power on to recover				
	OVER VOLTAGE	15.75 ~ 18.75V	31.5 ~ 37.5V	35.2 ~ 41.9V	47.2 ~ 56.3V	63 ~ 75V
		Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
FUNCTION	OUTPUT VOLTAGE PROGRAMMABLE(PV) Note 6	Adjustment of output voltage is allowable to 40 ~ 125% of nominal output voltage (60 ~ 125% for 12V). Please refer to the Function Manual.				
	OUTPUT CURRENT PROGRAMMABLE(PC) Note 6	Adjustment of constant current level is allowable to 20 ~ 100% of rated current. Please refer to the Function Manual.				
	AUXILIARY POWER	5V @ 0.3A, 12V @ 0.8A				
	REMOTE ON-OFF CONTROL	By electrical signal or dry contact Power ON:short Power OFF:open. Please refer to the Function Manual				
	REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.5V. Please refer to the Function Manual				
	ALARM SIGNAL	Isolated signal output for T-alarm and DC OK				
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing				
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 8)	SAFETY STANDARDS	UL62368-1, CAN/CSA C22.2 No. 62368-1, TUV BS EN/EN62368-1, BSMI CNS14336-1, AS/NZS62368.1, EAC TP TC 004 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	**Parameter**	**Standard**	**Test Level / Note**		
		Conducted	BS EN/EN55032 (CISPR32)	Class B		
		Radiated	BS EN/EN55032 (CISPR32)	Class A		
		Harmonic Current	BS EN/EN61000-3-2	Class A		
		Voltage Flicker	BS EN/EN61000-3-3	----		
	EMC IMMUNITY	BS EN/EN55035, BS EN/EN61000-6-2, BSMI CNS13438				
		Parameter	**Standard**	**Test Level / Note**		
		ESD	BS EN/EN61000-4-2	Level 3, 8KV air ; Level 2, 4KV contact		
		Radiated	BS EN/EN61000-4-3	Level 3		
		EFT / Burst	BS EN/EN61000-4-4	Level 3		
		Surge	BS EN/EN61000-4-5	Level 4, 2KV/Line-Line 4KV/Line-Earth		
		Conducted	BS EN/EN61000-4-6	Level 3		
		Magnetic Field	BS EN/EN61000-4-8	Level 4		
		Voltage Dips and Interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods		
OTHERS	MTBF	478.8K hrs min. Telcordia SR-332 (Bellcore) ; 42.1K hrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	300*85*41mm (L*W*H)				
	PACKING	2.1Kg;6pcs/13.6Kg/1.25CUFT				

NOTE

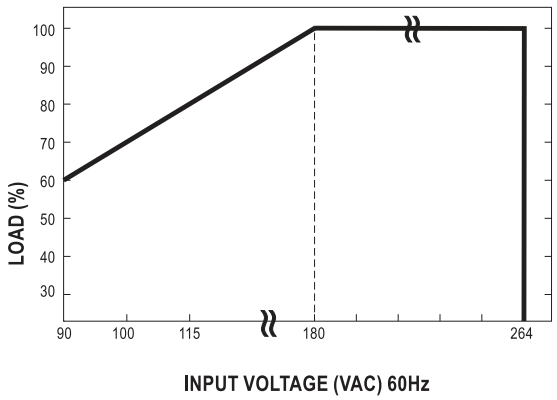
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Under parallel operation ripple of the output voltage may be higher than the SPEC at light load condition. It will go back to normal ripple level once the output load is more than 5%.
4. Tolerance : includes set up tolerance, line regulation and load regulation.
5. Derating may be needed under low input voltages. Please check the derating curve for more details.
6. PV/PC functions when users are not operating on PMBus/CANBus. SVR functions when users are neither operating on PMBus/CANBus nor using PV/PC.
7. Output will shut down after O/P voltage is below < 80% of Vset for 5 sec, re-power on to recover.
8. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 720mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on http://www.meanwell.com)
9. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).

※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

Block Diagram

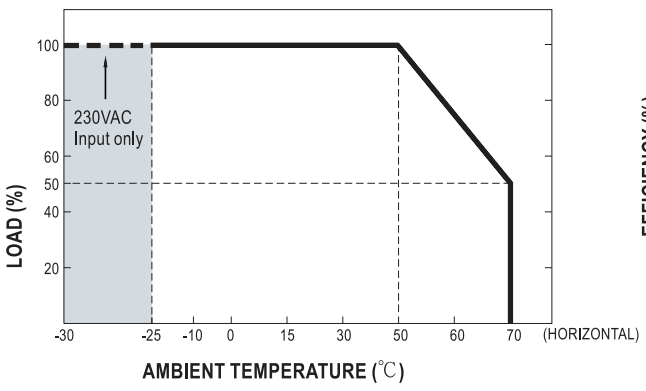


Static Characteristics

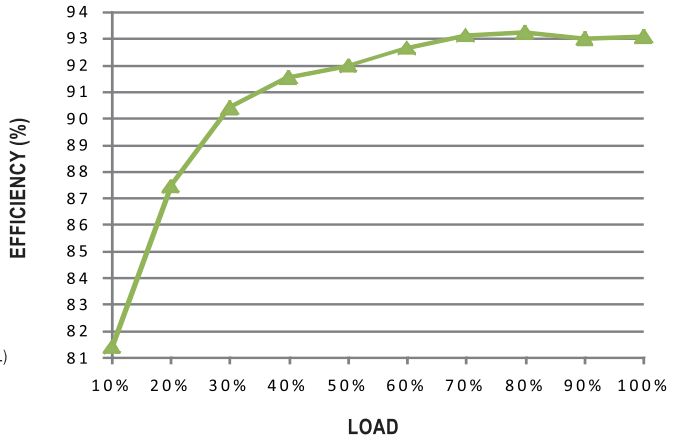


INPUT \ MODEL	12V	24V	27V	36V	48V
180~264VAC	1500W 125A	1608W 67A	1593W 59A	1602W 44.5A	1608W 33.5A
115VAC	1200W 100A	1286.4W 53.6A	1274.4W 47.2A	1281.6W 35.6A	1286.4W 26.8A
100VAC	1050W 87.5A	1125.6W 46.9A	1115.1W 41.3A	1121.4W 31.15A	1125.6W 23.45A
90VAC	900W 75A	964.8W 40.2A	955.8W 35.4A	961.2W 26.7A	964.8W 20.1A

Derating Curve



Efficiency vs Load (48V Model)



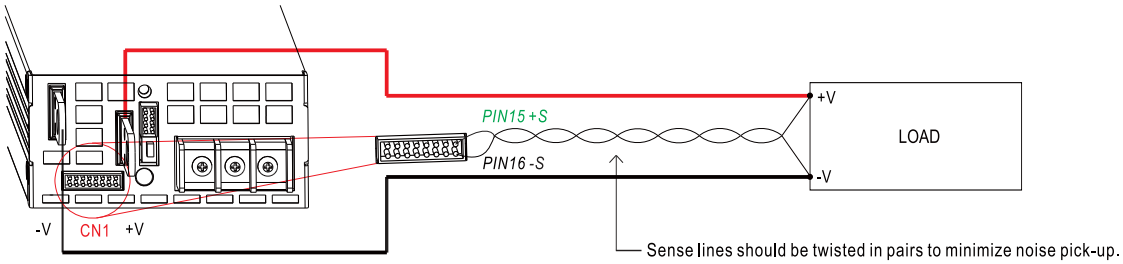
◎ The curve above is measured at 230VAC.

■ Function Manual

1. Voltage Drop Compensation

1.1 Remote Sense

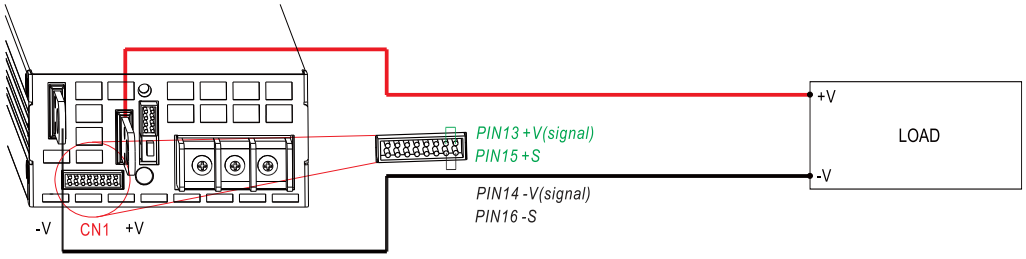
※ The Remote Sense compensates voltage drop on the load wiring up to 0.5V



◎ The +S signal should be connected to the positive terminal of the load whereas -S signal to the negative terminal.

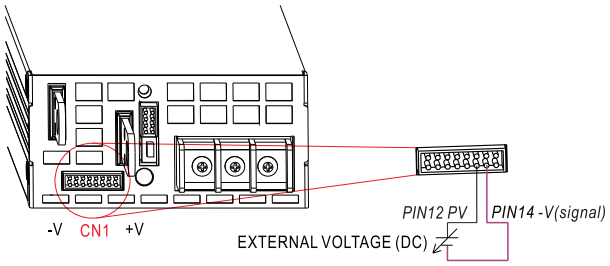
1.2 Local Sense

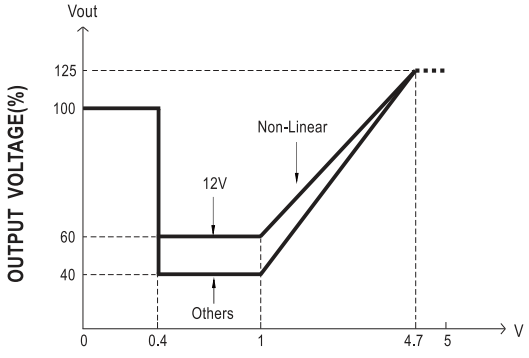
※ The +S,-S have to be connected to the +V(signal), -V(signal), respectively, as the following diagram, in order to get the correct output voltage if Remote Sense is not used.



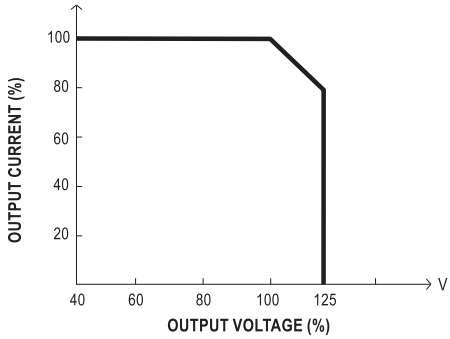
2. Output Voltage Programming (or, PV / remote voltage programming / remote adjust / margin programming / dynamic voltage trim)

※ In addition to the adjustment via the built-in potentiometer, the output voltage can be trimmed by applying EXTERNAL VOLTAGE.





EXTERNAL VOLTAGE (DC)

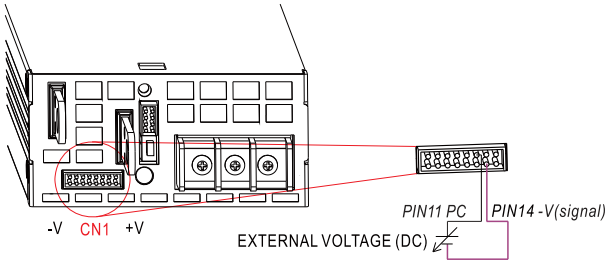


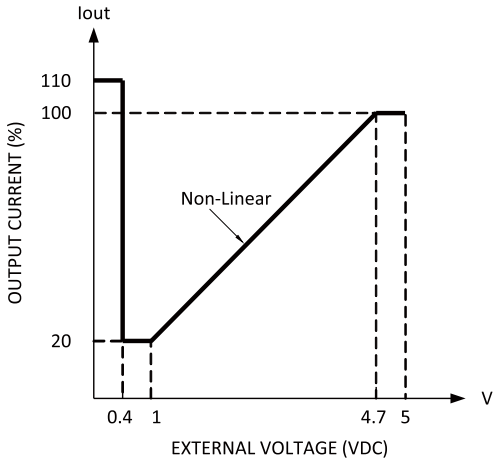
◎ The rated current should change with the Output Voltage Programming accordingly.

◎ For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section.

3. Constant Current Level Programming (or, PC / remote current programming / dynamic current trim)

※ The constant current level can be trimmed to 20~100% of the rated current by applying EXTERNAL VOLTAGE.



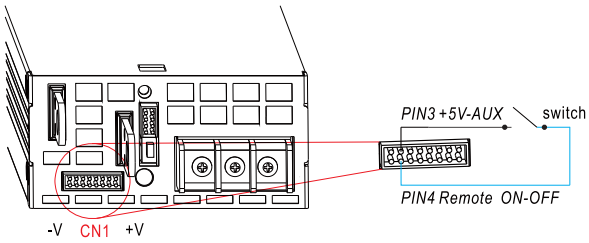


◎ For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section.

◎ Output will shut down after O/P voltage is below < 80% of Vset for 5 sec, re-power on to recover.

4. Remote ON-OFF Control

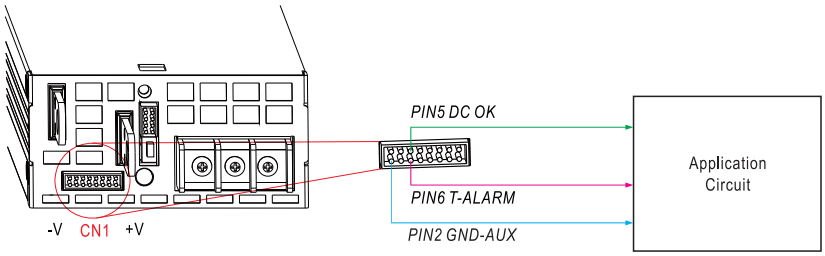
※ The power supply can be turned ON/OFF individually or along with other units by using the "Remote ON-OFF" function.



Between Remote ON-OFF and +5V-AUX	Power Supply Status
Switch Short	ON
Switch Open	OFF

5. Alarm Signal Output

※ There are 2 alarm signals, DC OK and T-ALARM, in TTL signal form, on CN1. These signals are isolated from output. The maximum sink current is 10mA.



6.Current Sharing with Remote Sense

RSP-1600 has the built-in active current sharing function and can be connected in parallel, up to 6 units, to provide higher output power as exhibited below :

※ The power supplies should be paralleled using short and large diameter wiring and then connected to the load.

※ Difference of output voltages among parallel units should be less than 0.2V.

※ The total output current must not exceed the value determined by the following equation:
Maximum output current at parallel operation=(Rated current per unit)×(Number of unit)×0.9

※ When the total output current is less than 5% of the total rated current, or say (5% of Rated current per unit)×(Number of unit) the current shared among units may not be balanced.

※ Under parallel operation ripple of the output voltage may be higher than the SPEC at light load condition. It will go back to normal ripple level once the output load is more than 5%.

※ CN500/SW1 Function pin connection

Parallel	PSU1		PSU2		PSU3		PSU4		PSU5		PSU6	
	CN500	SW1	CN500	SW1	CN500	SW1	CN500	SW1	CN500	SW1	CN500	SW1
1 unit	X	ON	—	—	—	—	—	—	—	—	—	—
2 unit	V	ON	V	ON	—	—	—	—	—	—	—	—
3 unit	V	ON	V	OFF	V	ON	—	—	—	—	—	—
4 unit	V	ON	V	OFF	V	OFF	V	ON	—	—	—	—
5 unit	V	ON	V	OFF	V	OFF	V	OFF	V	ON	—	—
6 unit	V	ON	V	OFF	V	OFF	V	OFF	V	OFF	V	ON

(V : CN500 connected ; X : CN500 not connected.)

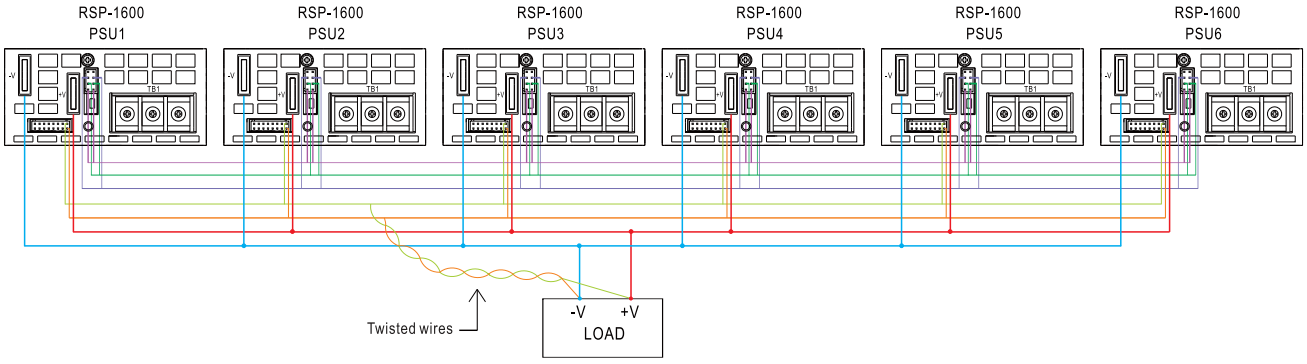
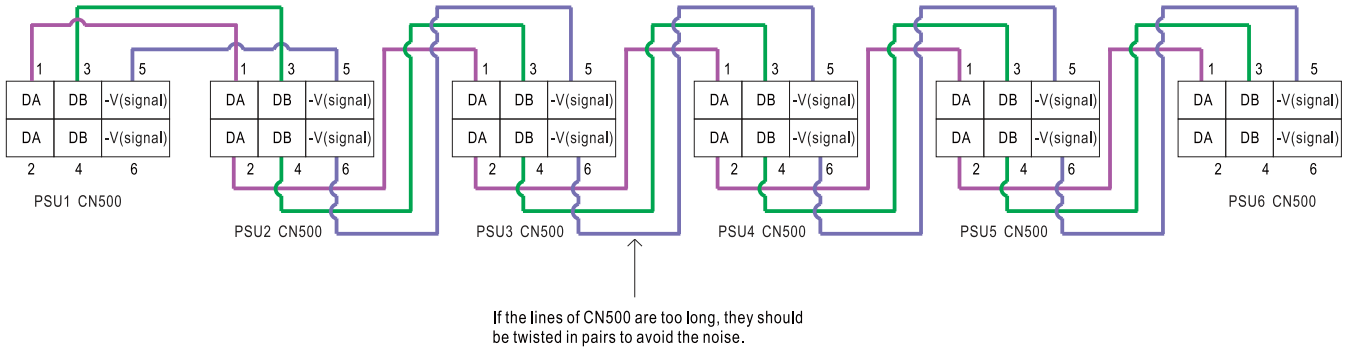


Fig 5.1

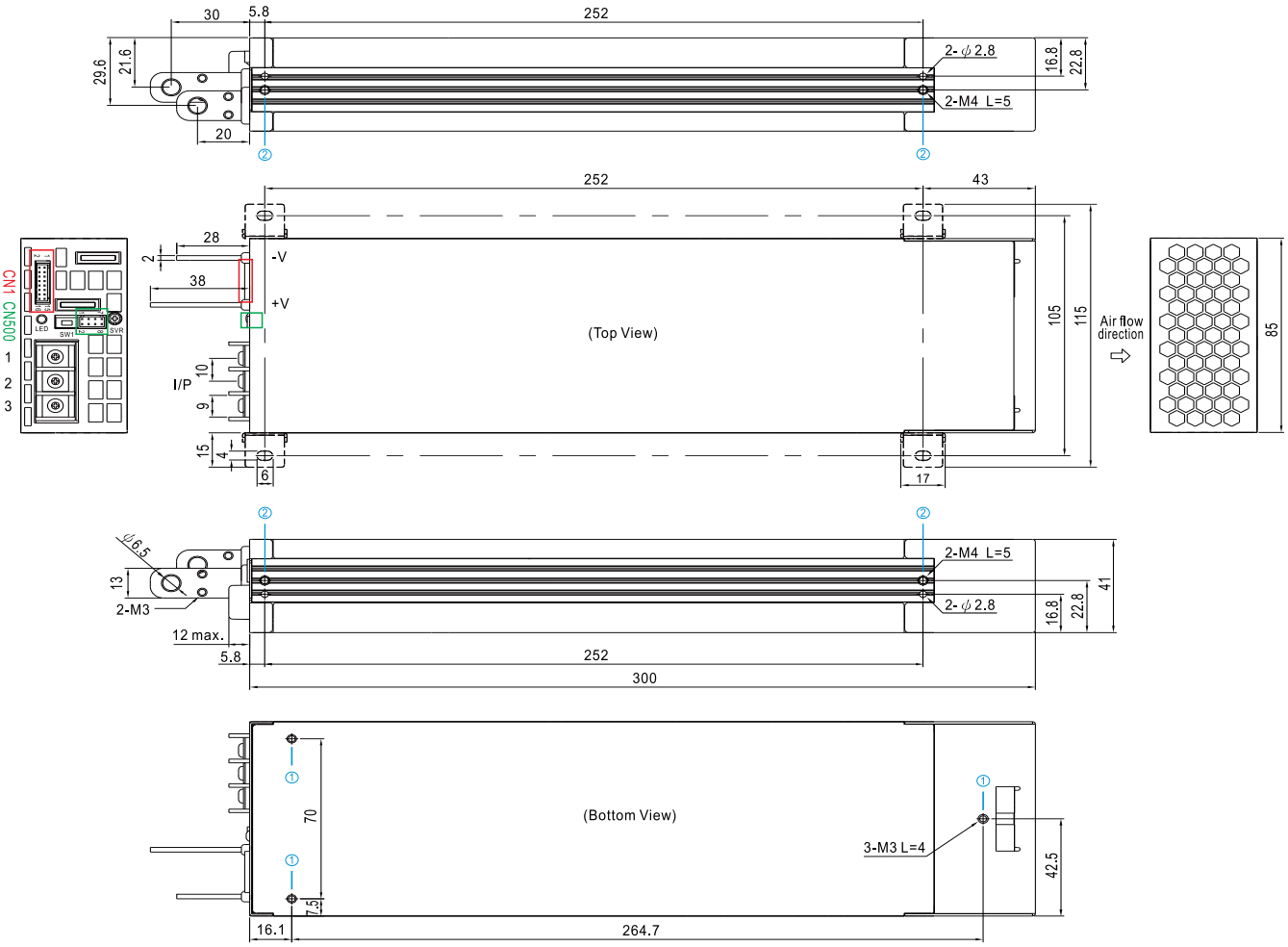


◎ DA,DB and -V(signal) are connected mutually in parallel.

◎ For Remote Sense / Local Sense, please refer to "Voltage Drop Compensation" section.

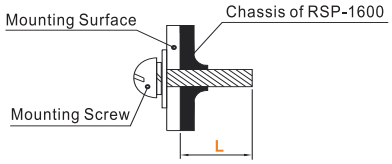
■ Mechanical Specification

Case No.250 Unit:mm

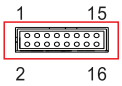


※ Mounting Instruction

Hole No.	Recommended Screw Size	MAX. Penetration Depth L	Recommended mounting torque
①	M3	4mm	6~8Kgf-cm
②	M4	5mm	7~10Kgf-cm



※ Control Pin No. Assignment(CN1) : HRS DF11-16DP-2DS or equivalent



Mating Housing	HRS DF11-16DS or equivalent
Terminal	HRS DF11-**SC or equivalent

Pin No.	Function	Description
1	+12V-AUX	Auxiliary voltage output, 10.6~13.2V, referenced to GND-AUX (pin2). The maximum load current is 0.8A. This output has the built-in "Oring diodes" and is not controlled by “Remote ON-OFF”.
2	GND-AUX	Auxiliary voltage output GND. The signal return is isolated from the output terminals (+V & -V).
3	+5V-AUX	Auxiliary voltage output, 4.5~5.5V, referenced to GND-AUX (pin2). The maximum load current is 0.3A. This output has the built-in "Oring diodes" and is not controlled by “Remote ON-OFF
4	Remote ON-OFF	The unit can turn the output ON/OFF by electrical signal or dry contact between *Remote ON/OFF* and *+5V-AUX*. (Note.2) Short (4.5 ~ 5.5V) : Power ON ; Open (-0.5 ~ 0.5V) : Power OFF ; The maximum input voltage is 5.5V.
5	$\overline{\text{DC-OK}}$	High (3.5 ~ 5.5V) : When the Vout ≦77%±5%. Low (-0.5 ~ 0.5V) : When Vout ≧80%±5%. The maximum sourcing current is 10mA and only for output. (Note.2)
6	T-ALARM	High (3.5 ~ 5.5V) : When the internal temperature exceeds the limit of temperature alarm, or when Fan fails. Low (-0.5 ~ 0.5V) : When the internal temperature is normal, and when Fan normally works. The maximum sourcing current is 10mA and only for output(Note.2)
7,8,9	NC	For standard model: Retain for future use.
	A0,A1,A2	For PMBus / CANBus model: PMBus / CANBus interface address lines. (Note.1)
10	NC	Retain for future use.
11	PC	Connection for constant current level programming. (Note.1)
12	PV	Connection for output voltage programming. (Note.1)
13	+V (Signal)	Positive output voltage signal. It is for local sense; it cannot be connected directly to the load.
14	-V (Signal)	Negative output voltage signal. It is for local sense and certain function reference; it cannot be connected directly to the load.
15	+S	Positive sensing for remote sense.
16	-S	Negative sensing for remote sense.

Note.1: Non-isolated signal, referenced to [-V(signal)].
Note.2: Isolated signal, referenced to GND-AUX.

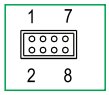
※ LED Status Indicators

LED	Description
Green	The power supply functions normally.
Red	Abnormal status (Over temperature protection, Overload protection, Fan fail.)

※ AC Input Terminal Pin No. Assignment

Pin No.	Assignment	Diagram	Maximum mounting torque
1	FG ⏚		8Kgf-cm
2	AC/N		
3	AC/L		

※ Control Pin No. Assignment(CN500) : HRS DF11-8DP-2DS or equivalent



Mating Housing	HRS DF11-8DS or equivalent
Terminal	HRS DF11-**SC or equivalent

Pin No.	Function	Description
1,2	DA	Differential digital signal for parallel control.
3,4	DB	Differential digital signal for parallel control.
5,6	-V (Signal)	Negative output voltage signal. It is for certain function reference; it cannot be connected directly to the load.
7	NC	For standard model: None.
	SDA	For PMBus model: Serial Data used in the PMBus interface. (Note)
	CANH	For CANBus model: Data line used in CANBus interface. (Note)
8	NC	For standard model: None.
	SCL	For PMBus model: Serial Clock used in the PMBus interface. (Note)
	CANL	For CANBus model: Data line used in CANBus interface. (Note)

Note: Isolated signal, referenced to GND-AUX.

※ Control Pin No. Assignment(SW1)

Pin No.	Function	Description
1,2	Terminal resistance	SW1 is the selector of terminal resistor that is designed for DA/DB signals and parallel control function.

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html

BatteryProtect 48 V-100 A

Avec un écran à 7 segments : facile à configurer

www.victronenergy.com

BatteryProtect BP 48-100

Connecteur avec un câble négatif CC préassemblé (inclus)

Le BatteryProtect protège la batterie en la déconnectant des charges non essentielles avant qu'elle ne soit complètement déchargée (ce qui l'endommagerait) ou avant qu'il ne lui reste pas suffisamment de puissance pour lancer le moteur.

Programmation très facile

La protection BatteryProtect peut être configurée pour s'activer/se désactiver à différents niveaux de tension. L'écran à 7 segments indiquera quelle configuration a été choisie.

Une configuration spéciale pour des batteries au lithium-ion

Avec ce mode, le BatteryProtect peut être contrôlé par le BMS du VE-Bus.

Consommation d'énergie très faible

Il s'agit d'une caractéristique importante pour les batteries au lithium-ion, en particulier après un arrêt en cas de tension faible.
Veuillez consulter notre fiche technique concernant les batteries au lithium-ion et le manuel du BMS du VE.Bus pour davantage de renseignements.

Protection contre la surtension

Pour éviter d'endommager les charges qui sont sensibles en cas de surtension, la charge est déconnectée si la tension CC dépasse 64 V.

Protection contre la combustion

Pas de relais, mais des transistors MOSFET, et par conséquent il n'y a pas d'étincelles.

Sortie d'alarme retardée

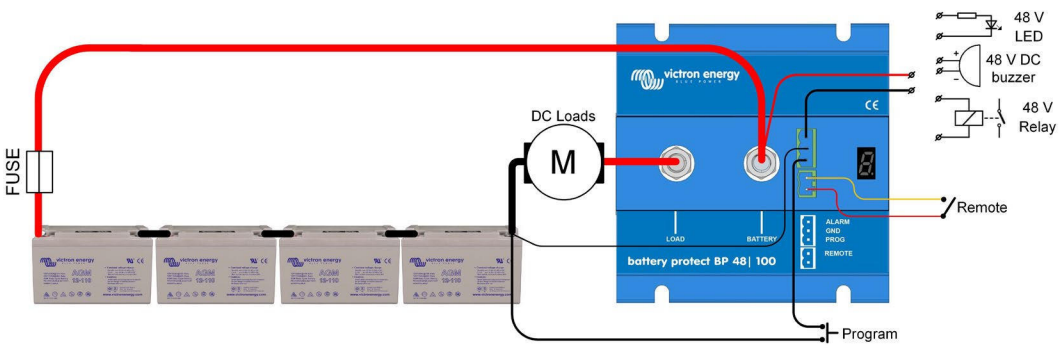
La sortie d'alarme est activée si la tension de la batterie chute pendant plus de 12 secondes en dessous du niveau de déconnexion prédéterminé. Le démarrage du moteur n'activera donc pas l'alarme. La sortie de l'alarme est une sortie de collecteur ouvert protégée contre les courts-circuits qui est raccordée au rail (négatif), courant maximal de 50 mA. La sortie de l'alarme est généralement utilisée pour activer un buzzer, un voyant LED ou un relais.

Temps de déconnexion et reconnexion de la charge

La charge sera déconnectée 90 secondes après l'activation de l'alarme. Si la tension de la batterie augmente à nouveau jusqu'au seuil de connexion durant cette période (lorsque le moteur a été démarré par exemple), la charge ne se déconnectera pas.
La charge sera de nouveau connectée 30 secondes après que la tension de batterie ait dépassé la tension de reconnexion de charge prédéfinie.

BatteryProtect	BP 48-100
Courant de charge continu maximal*	100 A
Puissance de pointe	250 A
Plage de tension d'exploitation	24 –64 V
Consommation de courant	Si allumé : 2 mA Si éteint ou si arrêt en cas de tension faible : 1,5 mA
Retard de sortie d'alarme	12 secondes
Charge maximale sur sortie d'alarme	50 mA (protection contre le court-circuit)
Temps avant déconnexion de charge	90 secondes (immédiat si le déclenchement se fait pas le BMS du VE.Bus)
Temps avant reconnexion de charge	30 secondes
Default thresholds	Désenclencher : 42 V Enclencher : 48 V
Plage de température d'exploitation	Pleine charge : -40 °C à +40 °C (jusqu'à 60 % de la charge nominale à 50 °C)
Protection IP	Electronique: IP67 (resinée) Connections: IP00
Poids	0,8 kg 1.8 livres
Connexion	M8
Couple de montage	9 Nm
Dimensions (H x L x P)	62 x 123 x 120 mm 2.5 x 4.9 x 4.8 pouces

* La fonction BatteryProtect n'est pas conçue pour les courants inverses provenant des sources de charge



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www.victronenergy.com

GNB®
INDUSTRIAL POWER
A Division of Exide Technologies

Industrial Batteries / Network Power

Sonnenschein SOLAR

*»**Premium quality** for **renewable energy**«*

Sonnenschein®

Industrial Batteries

The powerful range of Network Power

GNB® Industrial Power offers reliable energy storage solutions for critical systems requiring uninterrupted power supply. With a comprehensive product range based on state-of-the-art technologies, GNB delivers the right battery for every application.

The below table is only indicative and depends on the specific customer application. For more information please ask a GNB sales representative.

Applications	Battery ranges																	
	Sonnenschein							Marathon		Sprinter		Absolyte	Powerfit	Classic				
	A400/ A600	A400 FT	A500	A700	SOLAR	RAIL	Power Cycle	M-FT	L/XL	P/XP	XP-FT	GP/GX	S100/ S300	GroE	OCSM	OPzS	Energy Bloc/OGi	Solar	rail
Telecom	●	●	●	●			●	●	●		●	●			●	●	●		
UPS	●	●	●	●			●	●	●	●	●	●			●		●		
Emergency lighting	●	●	●	●			●	●	●	●	●		●			●	●		
Security	●		●	●						●	●		●		●	●			
EVU	●	●		●			●	●	●			●		●	●	●	●		
Utility	●	●	●	●		●	●	●	●			●			●		●		●
Photovoltaic					●		●					●						●	
Universal	●	●	●	●			●	●	●	●	●	●	●		●	●	●		

Powerful product brands

ABSOLYTE® MARATHON® Sprinter® Powerfit®

> VRLA batteries (**V**alve **R**egulated **L**ead **A**cid) in which the electrolyte is fixed in an **A**bsorbent **G**lass **M**at (AGM)
> Excellent high current capability
> Very economical
> Maintenance-free (no topping up)

Sonnenschein®

> VRLA batteries (**V**alve **R**egulated **L**ead **A**cid) in which the electrolyte is fixed in a gel (dryfit® technology)
> Inventor of Gel technology
> Highest reliability, even in non-optimal conditions
> Particularly suitable for cyclic applications
> Maintenance-free (no topping up)

classic®

> Conventional lead-acid batteries with liquid electrolyte
> Extreme reliability, proven over decades
> Low maintenance

Sonnenschein SOLAR

The compact alternative for smaller solar applications

Sonnenschein SOLAR batteries are specially designed for small to medium performance requirements in leisure and consumer applications. The advantages of the maintenance free VRLA-batteries are enhanced by the worldwide excellent reputation and technical image of the dryfit technology.

Your benefits:

> **Excellent cycling performance** – 800 cycles at 60% Depth of Discharge C_{10} (at 20 °C)

> **dryfit Gel** – VRLA technology

> **Lowest energy consumption** – saving costs

> **Robust design** – resilient in harsh conditions

> **Proof against deep discharge** – greater long-term energy delivery

> **Completely recyclable** – low CO_2 footprint

Specifications:

> Nominal capacity 6.60 – 230 Ah C_{100} (20 °C)
> Long shelf life up to 17 months at 20 °C without recharge due to the very low self discharge rate
> Designed in accordance with IEC 61427 and IEC 60896-21/22
> Manufactured in Europe in our ISO 9001 certified production plants
> Trouble-free transport of operational blocks, no restrictions for rail, road, sea and air transportation (IATA, DGR, clause A67)
> Approval: UL (Underwriter Laboratories), DNV GL (Germanischer Loyd)

Nominal capacity 6.60 – 230 Ah C_{100} | Block battery | Grid plate | Recyclable | Valve regulated lead-acid batteries | Proof against deep discharge | Maintenance-free (no topping up) | 800 cycles at 60 % DoD C_{10}

Sonnenschein SOLAR
Technical data

Technical characteristics and data

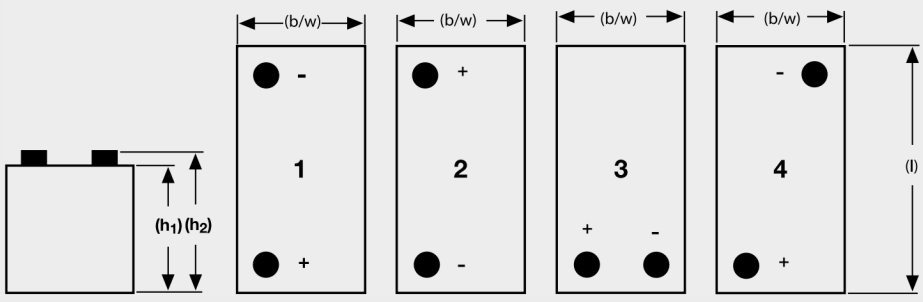
Type	Part number	Nom. voltage V	Nominal capacity C_{100} 1.80 Vpc 20 °C Ah	Discharge current I_{100} A	Length (l) max. mm	Width (b/w) max. mm	Height up to top of cover (h1) max. mm	Height including connectors (h2) max. mm	Weight* approx. kg	Terminal	Terminal position
S12/6.6 S	NGS01206D6HS0SA	12	6.60	0.06	152	65.5	94.5	98.4	2.60	S-4.8	3
S12/17 G5	NGS0120017HS0BA	12	17.0	0.17	181	76.0	-	167	6.10	G-M5	1
S12/27 G5	NGS0120027HS0BA	12	27.0	0.27	167	176	-	126	9.60	G-M5	1
S12/32 G6	NGS0120032HS0BA	12	32.0	0.32	197	132	160	179	11.1	G-M6	2
S12/41 A	NGS0120041HS0CA	12	41.0	0.41	210	175	-	175	14.2	A-Terminal	1
S12/60 A	NGS0120060HS0CA	12	60.0	0.60	261	136	208	230	18.0	A-Terminal	1
S12/85 A	NGS0120085HS0CA	12	85.0	0.85	353	175	-	190	25.5	A-Terminal	1
S12/90 A	NGS0120090HS0CA	12	90.0	0.90	330	171	213	236	28.2	A-Terminal	2
S12/130 A	NGS0120130HS0CA	12	130	1.30	286	269	208	230	36.7	A-Terminal	4
S12/230 A	NGS0120230HS0CA	12	230	2.30	518	274	216	238	63.5	A-Terminall	3

* Actual weight may differ by ±5%

Capacities C_1 - C_{100} (20 °C) in Ah

Type	C_1 1.70 Vpc	C_5 1.70 Vpc	C_{10} 1.70 Vpc	C_{20} 1.75 Vpc	C_{100} 1.80 Vpc
S12/6.6 S	2.90	4.60	5.10	5.70	6.60
S12/17 G5	9.30	12.6	14.3	15.0	17.0
S12/27 G5	15.0	22.1	23.5	24.0	27.0
S12/32 G6	16.9	24.4	27.0	28.0	32.0
S12/41 A	21.0	30.6	34.0	38.0	41.0
S12/60 A	30.0	42.5	47.5	50.0	60.0
S12/85 A	55.0	68.5	74.0	76.0	85.0
S12/90 A	50.5	72.0	78.0	84.0	90.0
S12/130 A	66.0	93.5	104	110	130
S12/230 A	120	170	190	200	230

Drawings with terminal position, terminal and torque



Not to scale!