

Perfect fit! The charging zone that you never had before!

Wireless power supply by
B&PLUS

Wireless charging system 600W series



Various lead, Li battery compatible!!

12V · 24V · 48V

Corresponds to two types of communication distance!!

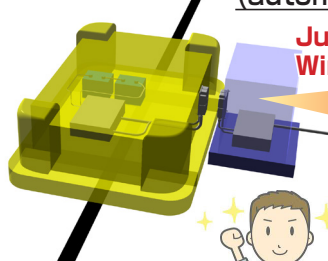
0...20mm · 20...40mm

Wide Variety

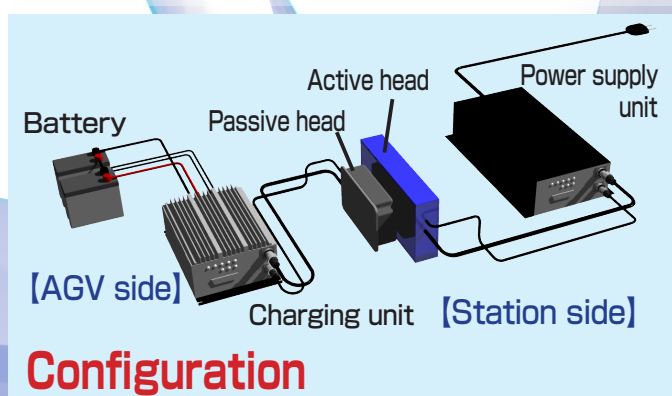
Wireless charging system for AGV

(automated guided vehicle)

**Just by facing each other!
Wireless Power Charging!**



**Easy to attach to your AGV
You can easily install it
in your AGV**



600W Product Features

- Battery friendly CC/CV (constant current/ constant voltage) method is adopted.
- During charging, various errors can be displayed on the LED and output to the outside (**communication function**).
- Recharge function: While both heads are facing each other, recharging is started when the voltage drops to $24V \pm 0.5V$ after completion of charge.
- Over current, over voltage protection function: Charging stops when it exceeds a certain level.
- Monitor the battery temperature (thermistor monitoring function) and stops charging when the temperature reaches a certain level or higher.
- Supports single-phase **AC90-220V** as rated input voltage! !
- **Charging voltage and charging current can be set.** (Please contact us for more information)
- **The long distance head can be installed adjacent to metal.** (Please contact us for more information)




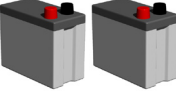

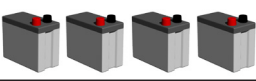


Check!




Check!

Plenty of variety 600W series

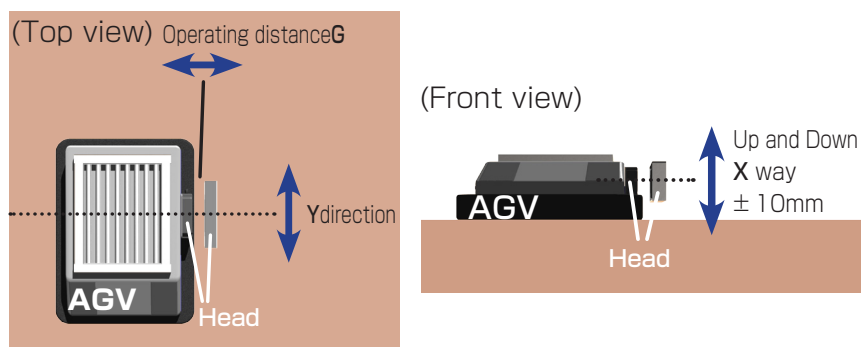
Available for 12V,24V,48V !

in any combination !

AGV side		
Various batteries	Charging unit	Passive head
12V 	RCS600-CA12 	RCS600-CH 
24V 	RCS600-CA24 	Standard
48V 	RCS600-CA48 	RCS600-CH-L 
Lithium-ion batteries are also possible. Please contact us.		Long distance

Station side	
Active head	Power supply unit
RCS600-AH 	RCS600-AC 
Standard	(Common for each head and charging unit)
RCS600-AH-L 	
Long distance	

Center offset and operating distance



Direction	Distance (Standard head)	Distance (Long distance head)
G	0 ~ 20mm	20 ~ 40mm
X	± 10mm	± 10mm
Y	± 15mm	± 20mm

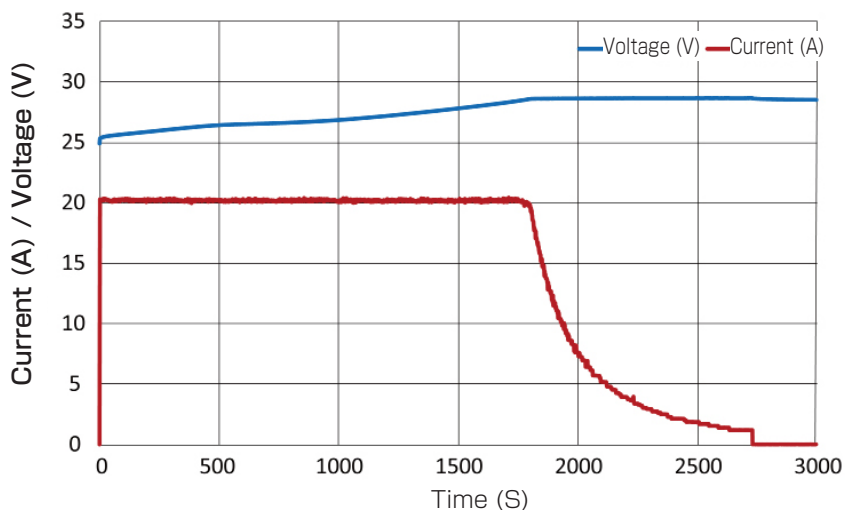
* The offset of each XY of the long distance specification shall be 20mm in total.

CC · CV Charging Graph

Constant current/constant voltage (CC · CV) charging control function enables optimum charging for battery.

[Example : SCIB SIP24-23 50% (11Ah)

Charging characteristics after discharge / CC current 20A CV voltage 28.6V]



About charge control

When the battery is in the discharging state (when the charge is low), the constant current control (CC) is performed. And the charging current is reduced so as not to exceed the set voltage. When the charging current drops to 1.0A (± 0.5A), the battery is considered to be fully charged and charging is terminated.

	Factory setting	adjustable range of charging voltage/current
12V	voltage : 14.4V ± 0.5V current : 34A ± 0.5A	voltage : 12V ~ 15V current : 10A ~ 34A
24V	voltage : 28.8V ± 0.5V current : 20A ± 0.5A	voltage : 24V ~ 30V current : 10A ~ 20A
48V	voltage : 57.6V ± 0.5V current : 10A ± 0.5A	voltage : 48V ~ 60V current : 5A ~ 10A

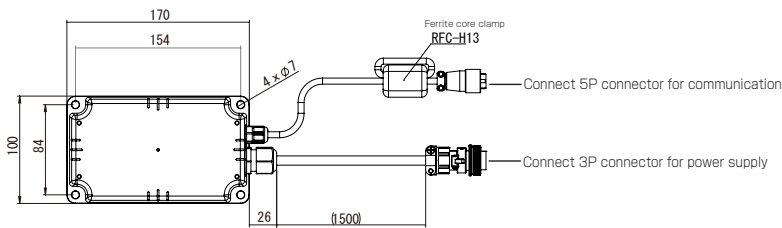
※ Charging to a 24V lead battery is the basic specification, but please contact us for application using lithium ion batteries.
We have the past result to charge to the lithium ion capacitor.

The setting is available at the time of shipment. In addition, a separate setting writing cable is available as an option, so please contact us for details.

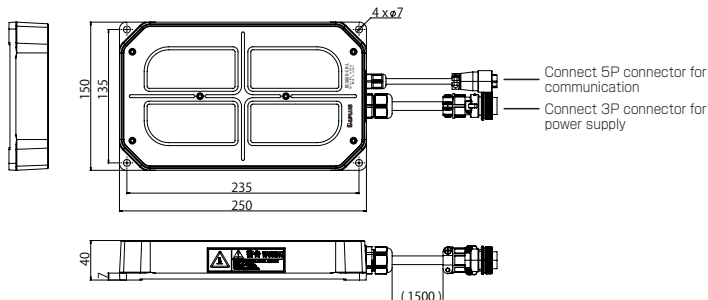
Specification

AGV side ↔ Station side

Standard passive head (RCS600-CH)



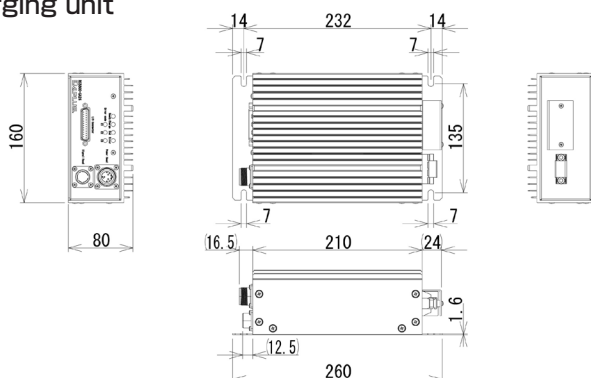
Long distance passive head (RCS600-CH-L)



Type	RCS600-CH (Standard)	RCS600-CH-L (Long distance)
Operating distance	0 ~ 20mm	20 ~ 40mm
Offset (Standard)	± 10 mm in the X axis direction and ± 15 mm in the Y axis direction (For details, see left.)	
Offset (Long distance)	± 10mm in X axis direction. ± 20mm in Y axis direction. However, the total displacement of the XY axes can be up to 20mm. (For details, see left.)	
Operating temperature	0...+50°C	
Protection class	IP65 (Indoor type)	IP6X(Indoor type)
Housing	PPS, aluminum	
Material	Output cable ϕ 8.6 2.5mm ² x3 PUR	
Signal cable	ϕ 5.6 0.3mm ² x4 PUR	
Weight (Standard)	2.0kg (Including cable connector / In case of above Type1.5m)	
Weight (Long distance)	3.1g (Including cable connector / In case of above Type1.5m)	
Accessories	Ferrite core clamp, Central positioning label	

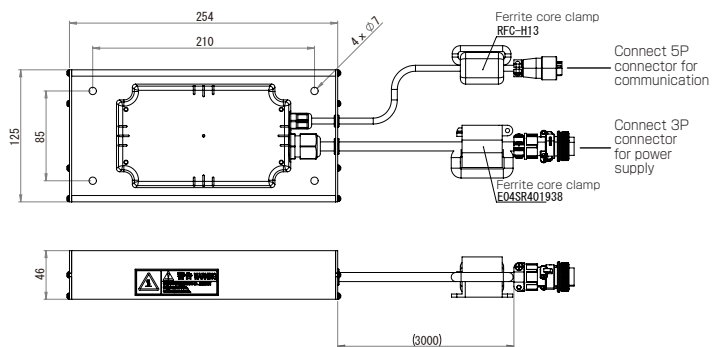
* Please contact us for flexible cables and cable length extensions.

Charging unit

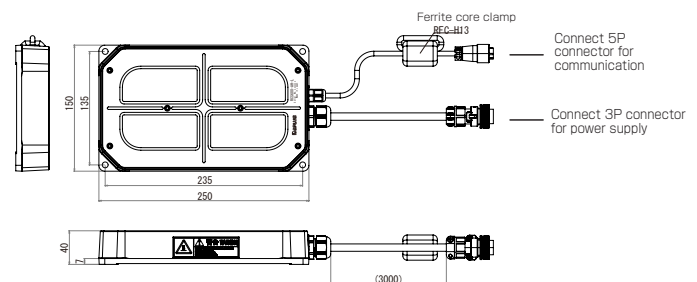


Type	RCS600-CA12	RCS600-CA24	RCS600-CA48
Output voltage	≤ 15V	≤ 30V	≤ 60V
Output current	≤ 34A	≤ 20A	≤ 10A
External input	Starting charging signal		
External output	Ready, Charge, End, Error, E1 ~ E3		
Operating temperature	0...+50°C		
Protection class	IP40 (Indoor type)		
Weight	2.8kg	2.7kg	2.7kg
Accessories	Thermistor, Dsub25P start signal ON connector		

Standard active head (RCS600-AH)



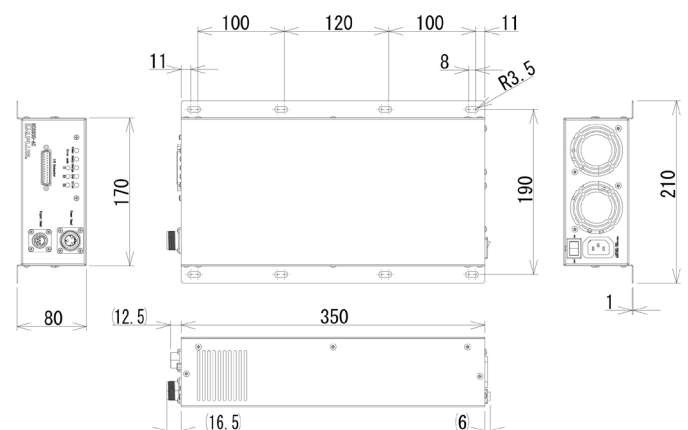
Long distance active head (RCS600-AH-L)



Type	RCS600-AH (Standard)	RCS600-AH-L (Long distance)
Operating temperature	0...+50°C	
Protection class	IP65 (Indoor type)	IP6X(Indoor type)
Connection	Supply : Connected to the Charging unit at the (male) 3-pin round, communication : Connected to the Charging unit at the (male) 5-pin round	
Housing	PPS, aluminum	
Material	Output cable ϕ 8.6 2.5mm ² x3 PUR	
Signal cable	ϕ 5.6 0.3mm ² x4 PUR	
Weight (Standard)	3.0kg (Including cable connector / In case of above Type3m)	
Weight (Long distance)	3.3kg (Including cable connector / In case of above Type3m)	
Accessories	Ferrite core clamp, Central positioning label	

* Please contact us for flexible cables and cable length extensions.

Power Supply unit



Type	RCS600-AC
Rated input voltage/Supply voltage	AC100V · 200V / AC90V ~ 220V Single-phase50/60Hz
Current consumption	9A (At 100V) , 4.5A (At 200V)
External output	Power, Ready, Charge, End, Error, E1 ~ E3
Operating temperature	0...+50°C
Protection class	IP20 (Indoor type)
Connection	Feeding connector Round 3-pin
Communication connector	Round 5-pin
Output signal	D-sub 25-pin
Power	3P inlet
Weight	3.3kg
Accessories	Power cable with ferrite core clamp

B&Plus has a lot of product lineup to choose from! Small to large capacity!

It's hard to pick but with B&PLUS you can simulation charging! (It's free.)
Attach a current logger to your AGV and measure the current by consumption.

～ Steps to submit charging simulation ～

1. Simulation confirmation items

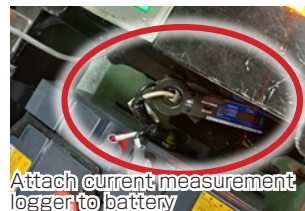
- ① Check Battery model and battery capacity
- ② Confirm running/stopping time ※ Running time/stop time per cycle
- ③ Confirm consumption current
Running, stopping and resting time and each current consumptions.
- ④ Can you charge while paused? Does it stop without charging?
- ⑤ Operating hours per day
Confirm the operation status of AGV at the time of starting/ending/
lunch break/immediate and whole day

2. AGV current consumption measurement

We will measure the current consumption using the current measurement logger with the AGV under consideration.



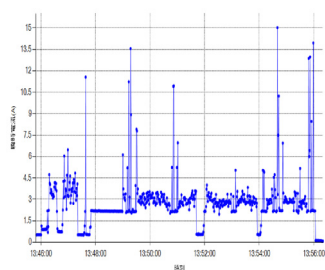
Current measurement logger



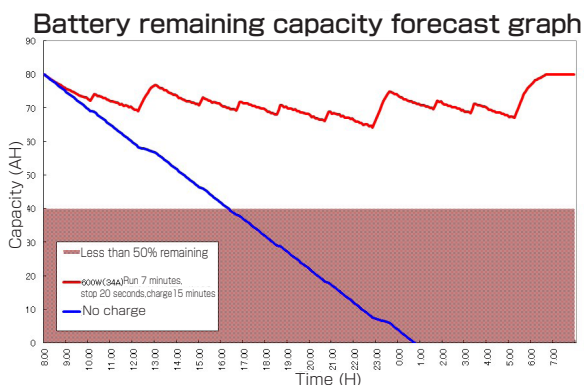
Attach current measurement logger to battery

3. Simulation report

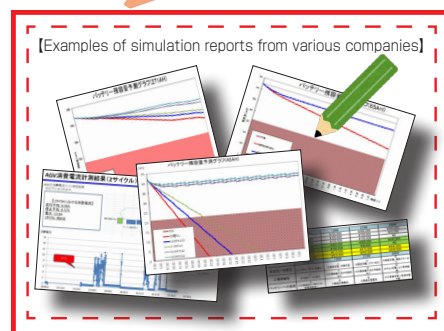
Report the results immediately with our special simulation software! A report can be submitted in about one week!



Current consumption graph



Based on the simulation results,
we will propose the most appropriate
charging system from our lineup!



【 Option】

◆ Dsub25P connector cable for I/O signal (Type code : RCS600-OP003)

◆ Power cable (Model: AYCS-212 BK)

◆ Various extension cables (Type code : Contact us for details)

◆ Battery connection cable

(Type code : For M6 terminal: RCS-CBL-M6-0_ / For M8 terminal: RCS-CBL-M8-0_ ※ Each is 1m and 2m each. _ contains 1 or 2, which represents the cable length.)

◆ Output setting / 600W writing cable set (Type code : RCS600-OP004)

【Additional purchase model】

◆ Additional Dsub25P-Connector for start signal ON (Type code: RCS600-OP001)

◆ Additional thermistor (Type code : RCS600-OP002(Cable 1.5m), RCS600-OP002EXT(Cable 2.5m))

◆ Additional ferrite core clamp (Type code : EO4SR401938)

A Note on Using 600W

● This product, which is one of those high frequency utilization equipment of Radio Law.

In the case of using in Japan, please apply for a permission application for high frequency utilization equipment permission to Ministry of Internal Affairs and Communications.

In the case of using the product out side Japan, please take appropriate action after confirming by yourself the standards and regulations to which the customer's system should conform.

● For the control communication device that is installed in the product, there is no need for (diploma) radio station authorization of the Minister as it corresponds to "a weak radio station (weak radio equipment)" to.

However, please be careful on the occasion of the operation because it may affect medical equipment and electronic equipment (such as pacemakers).



Dr. Wireless Cat

Hello!

My name is Dr. Wireless Cat! How was the 600W charging system introduced this time?

B&Plus can meet your needs. I introduced an optional cable, but this is also a product that was able to respond to customer's consultation. I wish I had something like this.

Please feel free to contact us for consultation!

Wireless Power Supply by
B & PLUS K.K.

Mail : b-plus-usa@b-plus-kk.com

Web : <http://www.b-plus-kk.com>

* Info may change the mention contents such as specifications without a notice.

Thank you for understanding

* Please refer to the instruction manual. It can be download by HP.

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