

Wireless charging achieve labor savings!

<Image of AGV>

Charging unit



It connects with
24V lead battery

Head

Now charging
wirelessly!

Power Supply
unit

(AGV body, I had offers from SHOWA AIRCRAFT INDUSTRY CO.,LTD.)

Benefits of system introduction

- Battery replacement connectors and connection for charging is not required, I was able to achieve power saving!
- Allows 24 hours of continuous operation with automatic charge!
- No risk of electric shock, safe and secure
- To the charge in stop place AGV, prevents, or low battery, the charging forgetting.
- The status signal of the voltage monitor, etc., and improved operability

Passive Head
RCS240PH



Charging unit
RCS210-PB24

<Charging side>

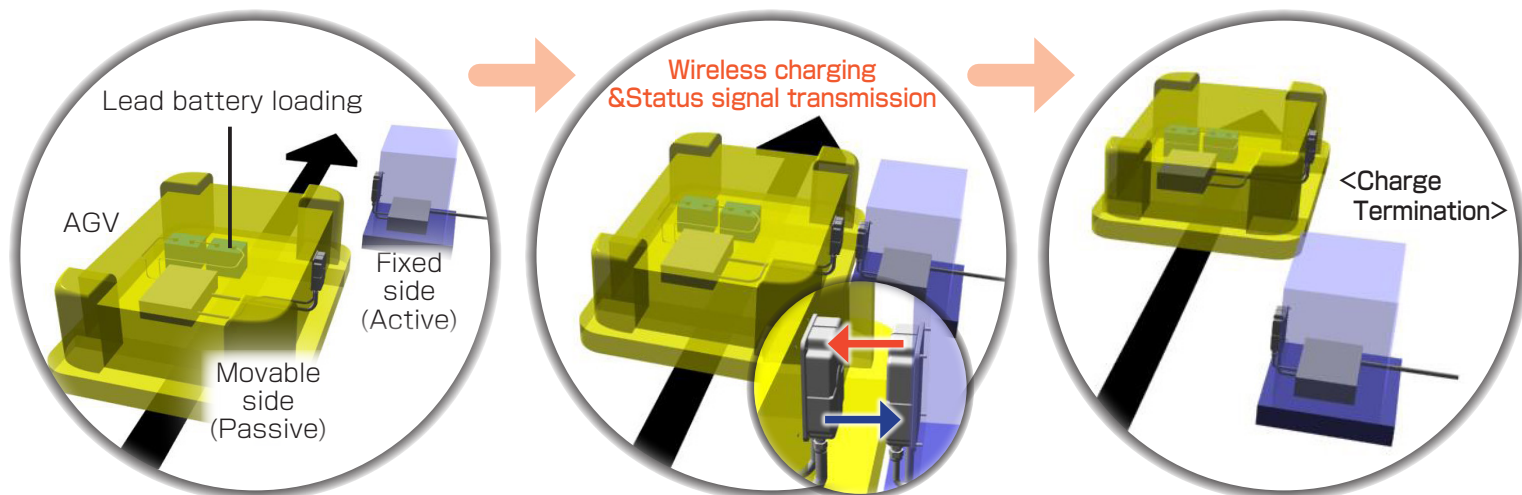
Active Head
RCS240AH



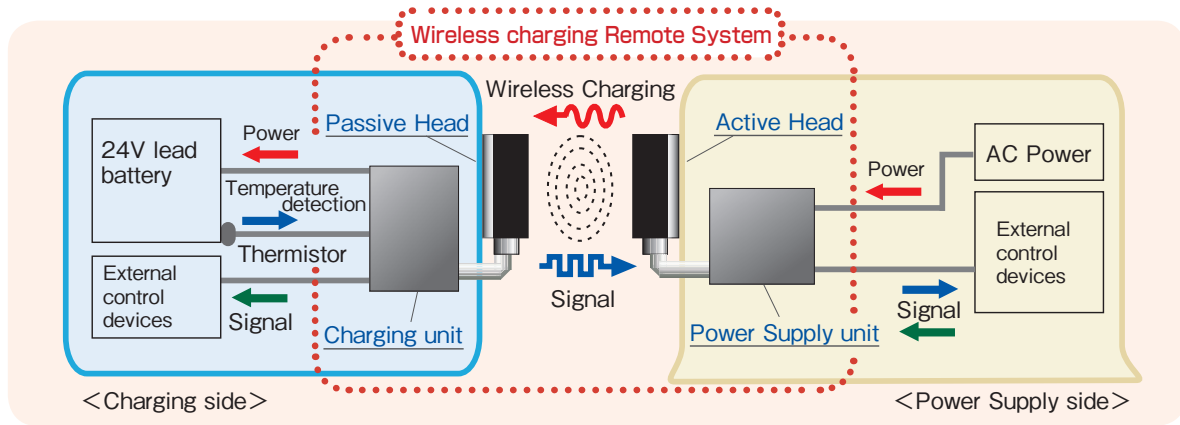
Power Supply unit
RCS240-AC1

<Power supply side>

The battery charge image in AGV

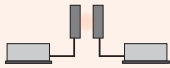


System chart

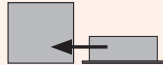


And benefits

Improvement of existing lines and smooth easy installation work



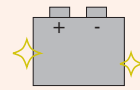
Transmitting a signal to an external device in the communication function



Reliable error detection, the protection function

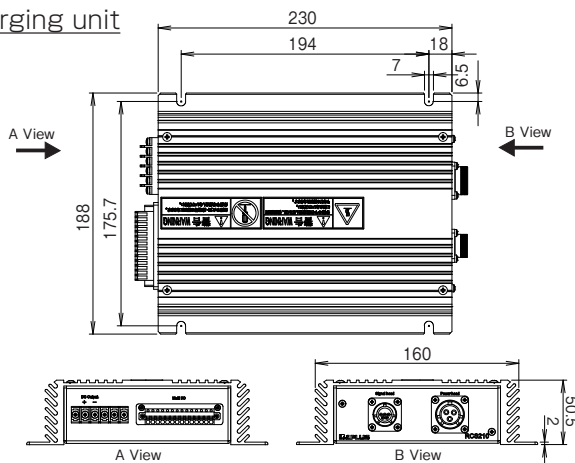


Battery life up at a constant current and constant voltage

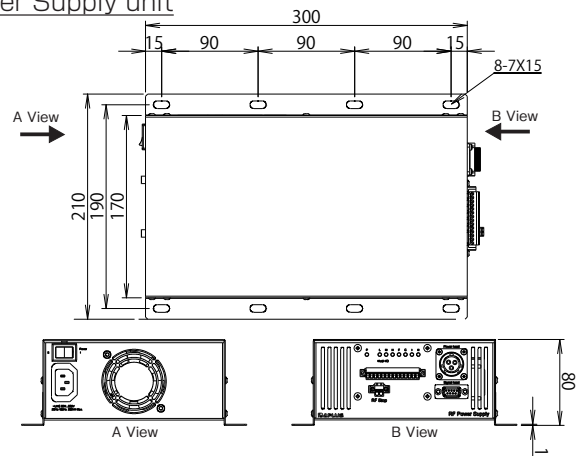


Specification

Charging unit



Power Supply unit

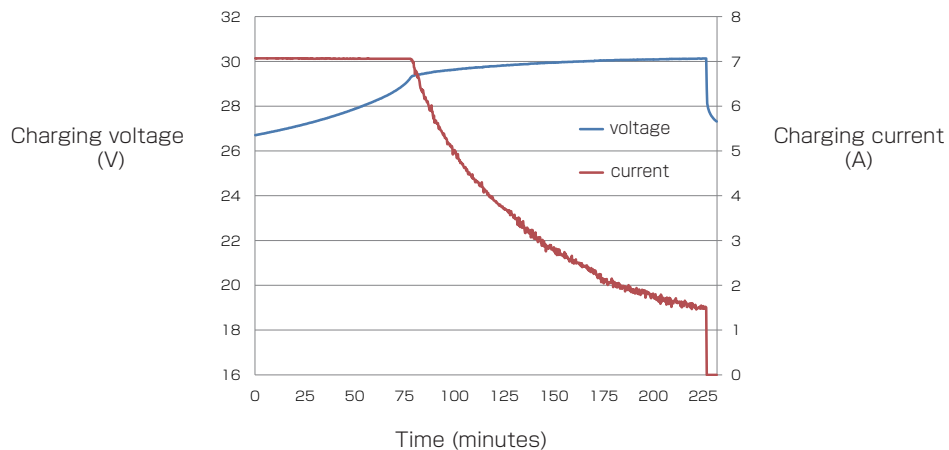


Type code	RCS210-PB24
Output voltage	≤ 30V (It varies depending on battery temperature)
Output current	≤ 7A (It varies depending on battery voltage)
Input	Voltage monitor request
Output	Voltage monitor signal, charging signal, float charging signal, Battery error signal
Cooling method	Natural air cooling
Protection circuit	Input : Overvoltage protection Battery : High temperature / low temperature protection, not connected, reverse connection protection
Operating temperature	0...+40°C
Protection class	IP20
Connection	Active Round 3-pin connector
	Communication Round 5-pin connector
	Terminal block Battery connection (2-pole), Thermistor connection (2-pole), Terminal width 6.2mm or less, Terminal screw size M3
Material Main part case	Aluminum
Weight	1.6Kg
Parallel driving	None
Series driving	Available
Accessories	Output cable (1.5m), Thermistor with cable (1.5m), External device communication connector, 4 screws M6x15

Type code	RCS240-AC1
Power supply voltage	100V AC / 200V AC
Current consumption	4A
Input	Start-up signal
Output	Voltage monitor signal, Inzone signal, charging signal, float charging signal, Battery error signal
Cooling method	Forced air cooling
LED display	Status display of input and output signal
Operating temperature	0...+50°C
Protection class	IP20
Connection	Active Round 3-pin connector
	Communication D-Sub 9-pin connector
	Power 3P inlet
Material Main part case	SECC
Weight	2.7Kg
Accessories	Power cable (2m), External device communication connector, 4 screws M6x15, One ferrite clamp

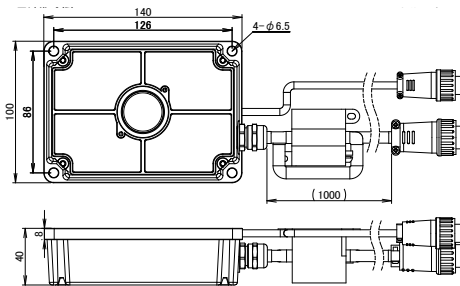
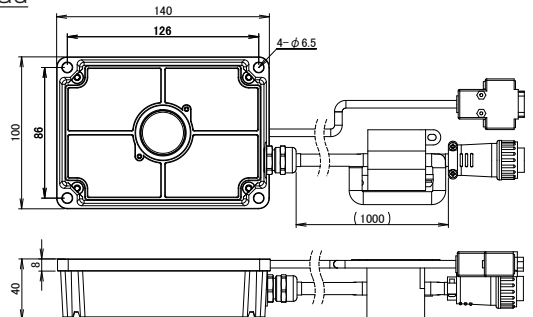
Charging characteristics (Reference)

30Ah (5 hour rate) Battery discharge about 50%

CC · CV charging characteristics

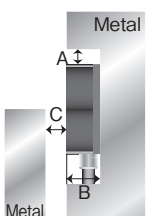
The control of charging is the CC,CV(*1). When voltage of Battery became to the fixed voltage and the discharge current of it dropped until 1.5A, it will go a state of float charging. Also, when the passive head went out of range that active head can supply power, it will stop supply power automatically and go standby state. In the case of the state of float charge. When the output current became to 3 A, it will return to the CV charge and it does the above.

*1. At the first, it will charge with constant current. After it became to the constant voltage. It is the method to charge while lowering the current to maintain the voltage.

Specification**Passive Head****Active Head**

Type code	RCS240PH
Output voltage	Charging unit reference
Output current	Charging unit reference
Transmission distance	0...10mm
Permissible center off-set	≤ 10mm (The sum of X and Y are less than 10mm)
Output current	Charging unit reference
Operating temperature	0...+50°C
Protection class	IP65
Connection	Active : Round 3-pin, Signal : Round 5-pin Each connector cable included (1m)
Material Active surface	PPS
Back	Aluminum
Weight	1.3Kg
Accessories	4 screws M6x15, One ferrite clamp

Type code	RCS240AH
Operating voltage	Power Supply unit reference
Current consumption	Power Supply unit reference
Load current	---
Frequency response	---
LED display	---
Operating temperature	0...+50°C
Protection class	IP65
Connection	Active : Round 3-pin, Signal : D-sub 9-pin Each connector cable included (1m)
Material Active surface	PPS
Back	Aluminum
Weight	1.3Kg
Accessories	4 screws M6x15, One ferrite clamp

Installation Notices**Surrounding metal**

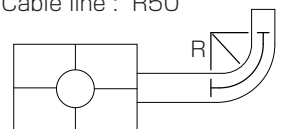
To avoid influence of surrounding metal, keep minimum spacing. Remove metal chips or metallic debris on the active surface. Metal chips or metallic debris generate may damage to device or cause unexpected trouble.

Type code	A(mm)	B(mm)	C(mm)
RCS240AH	100	40	45
RCS240PH			

Attachment

Please make the following is greater than or equal to the number of R(mm) bending of the cable line.

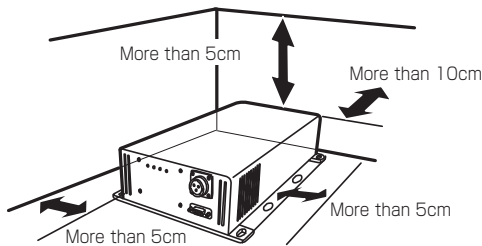
- Active Cable line and Passive Cable line : R50
- Signal Cable line : R30



Installation Notices

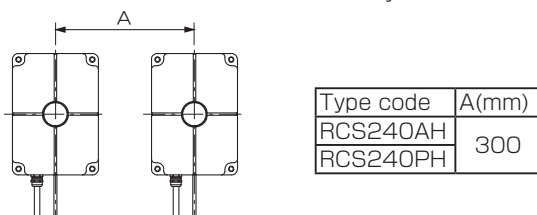
Installation

In order to obtain a good cooling effect, please keep spaces between the surrounding and the body unit as shown as below, so as not to block the airflow.



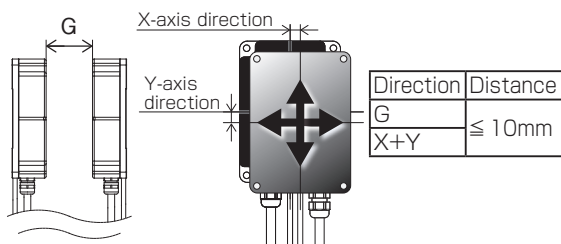
Mutual interference

If you are installing in parallel head, to avoid the effects of mutual interference, please attach the head with an interval greater than or equal to the value shown in the table below always.

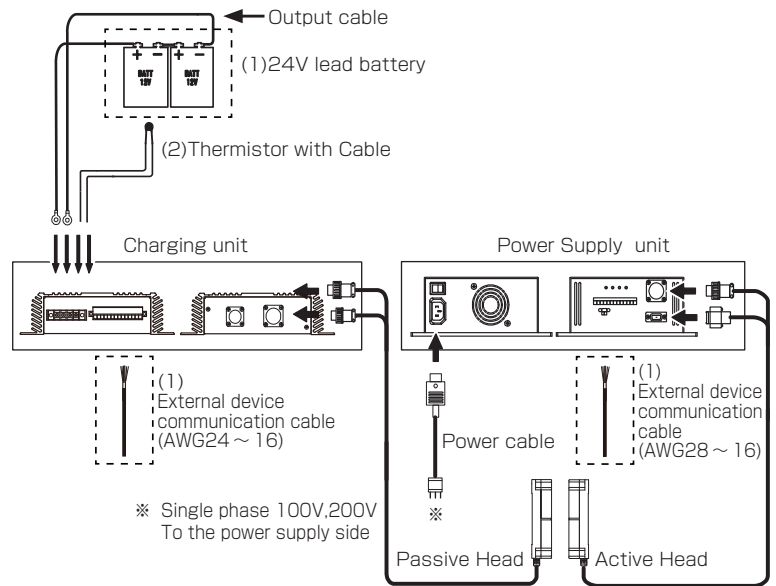


Center off-set and transmitting distance

The permissible center off-set of the feed head and charging head, please be installed so that the total (X + Y) axis deviation of the width of the X-axis · Y-axis is the following table.



Wiring



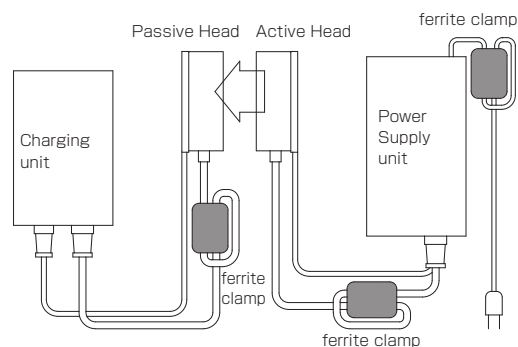
- (1) Parts of the dotted line (External device communication cable and 24V lead batteries) within the product is not included with this product. They are contents prepared and processed of a visitor.
- (2) That the protection function is turned ON, will be more than 40.5 °C. (Due to the installation conditions, there is a difference about ± 2 °C.) Please use the attached article always thermistor. Please be attached to the upper surface of the terminal near the 24V lead batteries. In that case, please do not touch any terminals.
- (3) Each cable, please connect with the specified length. You may receive an error due to the output such as a decrease occurs.

Wiring

The installation of the bundled ferrite clamp is necessary to meet a standard of the EMC(IEC61000-4-3).

Please attach a ferrite clamp to a power cable by 2 turns with the following points each.

- It is one within 20cm from a power supply unit
- It is one within 20cm from a power supply unit to the power cable of the active head.
- It is one within 20cm from a passive head to the power cable of the passive head.



Request for use on

- This product, which is one of those high frequency utilization equipment of Radio Law, Upon use You will need to install application. Please use it after you have made the application without fail.
Installation details of the application procedure, see Telecommunications website of the Ministry of Internal Affairs and Communications, Please.
- The control communication device that is installed in the product, there is no need for (diploma) radio station authorization of the Minister so apply 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).
- This product has become a Japan national specification. It can not be used outside of Japan. When used outside of Japan, I guess we assume any liability You.
- When using, refer to instruction manual, user's guide always.

Wireless Power Supply by
B & PLUS K.K.

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

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

* Contents is subject to change without notice.