Specification





| | | TICK 5 | | I I CIT 3 | | TICK 12 |
|---------------|-------------|----------------|-------------|-------------|-------------|-------------|
| Payload | | 3kg | | 5kg | | 12kg |
| Reach | | 630mm | | 915mm | | 1300mm |
| Speed(Tool) | | 1m/s | | 1m/s | | 1m/s |
| Weight | | 13kg | | 21kg | | 51kg |
| Repeatability | | ± 0.1mm | | ± 0.1mm | | ± 0.1mm |
| IP Level | | IP 64 | | IP 54 | | IP 54 |
| Motion Range | • J1: ±360° | • J2: ±360° | • J1: ±360° | • J2: ±360° | • J1: ±180° | • J2: ±150° |
| | • J3: ±160° | • J4: ±360° | • J3: ±165° | • J4: ±360° | • J3: ±165° | • J4: ±190° |
| | • J5: ±360° | • J6: Infinite | • J5: ±360° | • J6: ±360° | • J5: ±170° | • J6: ±360° |



Control Box

| Size | | 450 mm x 560 mm x 223 mm(WxHxD) | | |
|--------------------------------|--------------------|--------------------------------------|--|--|
| Communication Protocols | | TCP/IP, EtherCAT, Modbus TCP | | |
| External Force Detection Range | | 25Nm - 150Nm | | |
| Internal I/O ports | Digital In (Type) | 16 (PNP) | | |
| | Digital Out (Type) | 16 (PNP, supply current limit 200mA) | | |
| | Analog In | 2 | | |
| | Analog Out | 2 | | |
| Weight | | 20.2kg | | |
| Power | | 100-240 VAC, 50-60Hz | | |



Teaching Pendant

| Size | | 340mm x 268mm x 81mm |
|---|------------------|----------------------|
| Weight | | 1.8kg |
| Monitor | Display Size | 12 inch |
| | Resolution | 1024 x 768 |
| | Touch Tech. | Resistive |
| User interface | Power Switch | 1 |
| | Emergency Switch | 1 |
| Port | USB 2.0 | 1 |
| Cable Length (touchscreen ↔ control box) | | 5 m |
| Accessory | T/P Holder | 1 |





-0MHER

A la vanguardia de la tecnología

Hanwha Collaborative Robot





Hanwha presents the collaborative robot HCR for a more convenient and safer future.

The collaborative robot HCR is easy to control and is flexible in responding to changes in production layout, effectively cutting investment and operating expenses. It not only automates manual work but also provides a safe and convenient work environment for employees.



HCR series are used in many different industries to solve a variety of challenges.

HCR-3: The small-lightweight collaborative robot, HCR-3 is ideal for narrow spaces that are not reachable by the operator. Benefits of infinite rotation on the end joint, it has an advantage of screw driving and assembly applications.

HCR-5: The most popular model, HCR-5 has its reach of 915mm which is equivalent to average man's arm. HCR-5 helps employees to improve upon existing applications to increase productivity.

HCR-12: Thanks to its large working radius, HCR-12 is easy to pick-and-place heavy products. Notably, it is suitable for loading-unloading and palletizing applications.



Due to its easy deployment and flexible mounting options, HCR offers the optimal use of space









HCR provides stable use and is capable to collaborate with employees.

Safety functions

- Collision detection (25NM~150NM), Impact mitigation (to prevent jamming)
- Joint rotation limit, joint speed limit,
 TCP speed limit and virtual safety fence
- Reliable control system with redundant design of safety module
- * ISO-13849 Cat3 PLd achieved







Intuitive software GUI allows anyone to set-up and operate HCR

To use traditional industrial robot, operators should have long-term training or hire the experts from outside. However, HCR operation software "Rodi" let even unexperienced operators intuitively and efficiently control the robot or even peripheral systems.

- Easy programming thanks to icon based GUI. (provides script systems)
- Timeline basis programming allows users to intuitively monitor the workflow
- API makes it easier to develop customer applications



Flexibility in different applications

Thanks to its flexible deployment, safe collaboration and easy use, HCR can be applied to various process, from simple tasks such as pick-and-place and palletizing to screw driving, polishing and dispensing.

Also, HCR-5 achieved the clean class ISO 2. It enlarged its application to meet the requirement of clean environment.









