

Hanwha Robotics

HCR Series Specification

		HCR-3	HCR-5	HCR-12
Degrees of freedom		6 rotating joints	6 rotating joints	6 rotating joints
Weight (excl. cable)		13kg (28.5lb)	21kg(46.3lb)	53kg (116lb)
Payload		3kg (6.6lb)	5kg (11lb)	12kg (26.5lb)
Reach		630mm (24.8in)	915mm (36in)	1300mm (51.2in)
Joint ranges	J1	± 360°	± 360°	± 180°
	J2	± 360°	± 360°	-165° ~ +135°
	J3	± 160°	± 165°	-85° ~ +245°
	J4	± 360°	± 360°	± 190°
	J5	± 360°	± 360°	± 170°
	J6	Infinite	± 360°	± 360°
Joint Speed	J1	Max 180°/sec	Max 178°/sec	Max 130°/sec
	J2	Max 180°/sec	Max 178°/sec	Max 130°/sec
	J3	Max 180°/sec	Max 178°/sec	Max 200°/sec
	J4	Max 360°/sec	Max 180°/sec	Max 200°/sec
	J5	Max 360°/sec	Max 180°/sec	Max 200°/sec
	J6	Max 360°/sec	Max 180°/sec	Max 200°/sec
Linear Speed (Typical)		1m/s (39.4 in/s)	1m/s (39.4 in/s)	1m/s (39.4 in/s)
Repeatability		±0.1mm (±0.0039 in)	±0.1mm (±0.0039 in)	±0.1mm (±0.0039 in)
IP Classification		IP64	IP54	IP54
Flange		ISO 9409-1:2004 [Type 50-4-M6]	ISO 9409-1:2004 [Type 50-4-M6]	ISO 9409-1:2004 [Type 50-4-M6]
Too I/O	Digital In	2 (PNP)	4 (PNP)	4 (PNP)
	Digital Out	2 (NPN)	4 (NPN)	4 (NPN)
	Analog In	2	2	2
	DC	12V or 24V, 1.6A (continuous)	12V or 24V, 1.6A (continuous)	12V or 24V, 1.6A (continuous)
	EtherCAT	N/A	1	1
Mounting Position		Floor, Wall, Ceiling	Floor, Wall, Ceiling	Floor, Ceiling
Material		Aluminum(Link, Cover), Plastic(Seal, LED)	Aluminum(Link, Cover), Plastic(Seal, LED)	Aluminum(Link, Cover), Plastic(LED)
Footprint		Ø128 mm	Ø150 mm	220mm x 227mm
Cable Length (Body-Controller)		6m (integrated)	6m (integrated)	6m (separable)
Etc.			Cleanroom Certification : ISO Class 2 according to ISO 14644-1	

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Controller	Box size(WxHxD)	450 mm x 560 mm x 223 mm	450 mm x 560 mm x 223 mm	450 mm x 560 mm x 223 mm	
	Weight	20kg	20kg	21kg	
	I/O Ports	Emergency	1ch (dual)	1ch (dual)	1ch (dual)
		Safety	4ch	4ch	4ch
		Remote Power On	Yes	Yes	Yes
		Digital In	16 (PNP) * including 8 flexible inputs for safety	16 (PNP) * including 8 flexible inputs for safety	16 (PNP) * including 8 flexible inputs for safety
		Digital Out	16 (PNP, <200mA per chl, 2A max) * including 8 flexible outputs for safety	16 (PNP, <200mA per chl, 2A max) * including 8 flexible outputs for safety	16 (PNP, <200mA per chl, 2A max) * including 8 flexible outputs for safety
		Analog In	2	2	2
		USB 2.0	1EA	1EA	1EA
		Ethernet (RJ-45)	1Gbps 1EA	1Gbps 1EA	1Gbps 1EA
	Communication	TCP/IP	Yes	Yes	Yes
		Mobus/TCP	Yes	Yes	Yes
	IP Classification	IP20	IP20	IP20	
	Power Supply	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (2kW)	
	Etc.		Cleanroom Certification : ISO Class 5 according ISO 14644-1		
T/P	Size	343mm x 270mm x 81mm	343mm x 270mm x 81mm	343mm x 270mm x 81mm	
	Display Size	12 inch	12 inch	12 inch	
	Weight	1.8kg (excl. cable)	1.8kg (excl. cable)	1.8kg (excl. cable)	
	Communication	USB 2.0 1EA	USB 2.0 1EA	USB 2.0 1EA	
	Cable Length (TP-Controller)	4.5m	4.5m	4.5m	
Noise	<80dB (peak)	<80dB (peak)	<80dB (LAeq)		
Ambient Temperature	0 °C ~ 50 °C	0 °C ~ 50 °C	0 °C ~ 45 °C		
Humidity	-	RH 20% ~ RH 80%	RH 20% ~ RH 80%		
Safety	EN ISO 13849-1 Cat.3, PL d EN ISO 10218-1, CE MD, KCs	EN ISO 13849-1 Cat.3, PL d EN ISO 10218-1, CE MD, KCs	EN ISO 13849-1 Cat.3, PL d EN ISO 10218-1, CE MD, KCs		



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