

HCR Advanced

Hanwha Collaborative Robot



HCR-3A

HCR-5A

HCR-12A

HCR-14

Robot Body			HCR-3A	HCR-5A	HCR-12A	HCR-14		
Robot Body	Basic Specifications	Payload	3 kg	5 kg	12 kg	14 kg		
		Reach	630 mm	915 mm	1,300 mm	1,420 mm		
		DOF	6	6	6	6		
	Performance	Repeatability		±0.05 mm	±0.05 mm	±0.07 mm	±0.04 mm	
		Linear Speed		1m/s	1m/s	1m/s	1.5m/s	
		Motion Range & Speed	J1		±360°, Max 180°/sec	±360°, Max 178°/sec	±180°, Max 130°/sec	±360°, Max 155°/sec
			J2		±360°, Max 180°/sec	±360°, Max 178°/sec	±150°, Max 130°/sec	±360°, Max 155°/sec
			J3		±160°, Max 180°/sec	±165°, Max 178°/sec	±165°, Max 200°/sec	±165°, Max 230°/sec
			J4		±360°, Max 360°/sec	±360°, Max 180°/sec	±190°, Max 200°/sec	±360°, Max 270°/sec
			J5		±360°, Max 360°/sec	±360°, Max 180°/sec	±170°, Max 200°/sec	±360°, Max 270°/sec
	J6		Infinite, Max 360°/sec	±360°, Max 180°/sec	±360°, Max 200°/sec	±360°, Max 270°/sec		
	Tool/IO	Tool/IO #1	Connector	M8, 8pin, A Coding	M8, 8pin, A Coding	M8, 8pin, A Coding	M8, 8pin, A Coding	
			Power	DC 24V	DC 24V	DC 24V	DC 24V	
			Digital In	2 ch	2 ch	2 ch	2 ch	
			Digital Out	2 ch	2 ch	2 ch	2 ch	
			Analog In	2 ch	2 ch	2 ch	2 ch	
		Tool/IO #2	Connector	-	M8, 8pin, A Coding	M8, 8pin, A Coding	M8, 8pin, A Coding	
			Power	-	DC 24V	DC 24V	DC 24V	
			Digital In	-	2 ch	2 ch	2 ch	
			Digital Out	-	2 ch	2 ch	2 ch	
		EtherCAT	Connector	M8, 6 pin	M8, 6 pin	M8, 6 pin	M8, 6 pin	
			DC	TX+, TX-, RX+, RX-DC 24V	TX+, TX-, RX+, RX-DC 24V	TX+, TX-, RX+, RX-DC 24V	TX+, TX-, RX+, RX-DC 24V	
			DC Power	Max 1.5A (1.5A/pin)	Max 3A (1.5A/pin)	Max 3A (1.5A/pin)	Max 3A (1.5A/pin)	
Installation			Weight	13 kg	21 kg	53 kg	42 kg	
	Footprint	Ø128 mm	Ø150 mm	220 x 227 mm	Ø190 mm			
	Robot Mounting	Floor, Wall, Ceiling	Floor, Wall, Ceiling	Floor, Wall (Max 30°), Ceiling	Floor, Wall (Max 30°), Ceiling			
	IP Ratings	IP64	IP54	IP54	IP54			
	Noise Level	≤60dBA	≤65dBA	≤70dBA	≤65dBA			
Controller	Basic Specifications	Size (W x H x D)	450 x 470 x 223 mm	450 x 470 x 223 mm	450 x 470 x 223 mm	550 x 482 x 251 mm		
		Weight	17.6 kg	17.6 kg	19.8 kg	25.2 kg		
		Power Source	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (1kW)	100-240 VAC, 50-60Hz (3.6kW)		
	Communication Protocols	TCP/IP	Yes	Yes	Yes	Yes		
		Mobus TCP	Yes	Yes	Yes	Yes		
		EtherNet/IP	Not Applicable	Not Applicable	Not Applicable	Yes		
	Internal I/O Ports	Emergency	2 ch (4ports)	2 ch (4ports)	2 ch (4ports)	2 ch (4ports)		
		Safety	2 ch (4ports)	2 ch (4ports)	2 ch (4ports)	2 ch (4ports)		
		Remote Power On/Off	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes		
		Digital In	Flexible In 8 ch (SINK)	Flexible In 8 ch (SINK)	Flexible In 8 ch (SINK)	Flexible In 8 ch (SINK)		
			General In 8 ch (SINK)	General In 8 ch (SINK)	General In 8 ch (SINK)	General In 8 ch (SINK)		
		Digital Out	Flexible Out 8 ch (SOURCE)	Flexible Out 8 ch (SOURCE)	Flexible Out 8 ch (SOURCE)	Flexible Out 8 ch (SOURCE)		
			General Out 8 ch (SOURCE)	General Out 8 ch (SOURCE)	General Out 8 ch (SOURCE)	General Out 8 ch (SOURCE)		
			* <1.2A/channel	* <1.2A/channel	* <1.2A/channel	* <1.2A/channel		
		Analog In	2 ch	2 ch	2 ch	2 ch		
		Analog Out	2 ch	2 ch	2 ch	2 ch		
		Incremental Encoder In	2 ch	2 ch	2 ch	2 ch		
Teach Pendant	Basic Specifications	Size (W x H x D)	343 x 270 x 81 mm	343 x 270 x 81 mm	343 x 270 x 81 mm	343 x 270 x 81 mm		
		Weight	1.8 kg	1.8 kg	1.8 kg	1.8 kg		
		Screen Size	12.1 inch	12.1 inch	12.1 inch	12.1 inch		
		Display Resolution	1024 x 768	1024 x 768	1024 x 768	1024 x 768		
		Power Switch	1 ea	1 ea	1 ea	1 ea		
		Emergency Switch	1 ea	1 ea	1 ea	1 ea		