

Compact harmonic platforms for precision wrists, end-effectors and lightweight robotic joints.

MODEL SELECTION

Model	Module Ø	Start / Stop Peak Torque (Nm)	Reduction Ratio	Rated Power (W)	Weight — No Brake (kg)	Communication
AHM-040-003-R51	40 mm	3.3	51	30	0.19	CAN / EtherCAT
AHM-040-005-R101	40 mm	4.8	101	30	0.19	CAN / EtherCAT
AHM-052-008-R51	52 mm	8.3	51	50	0.32	CAN / EtherCAT
AHM-052-011-R101	52 mm	11	101	50	0.32	CAN / EtherCAT
AHM-060-023-R51	60 mm	23	51	85	0.45	CAN / EtherCAT
AHM-060-029-R81	60 mm	29	81	85	0.45	CAN / EtherCAT
AHM-060-034-R101	60 mm	34	101	85	0.45	CAN / EtherCAT

MODEL CONFIGURATION

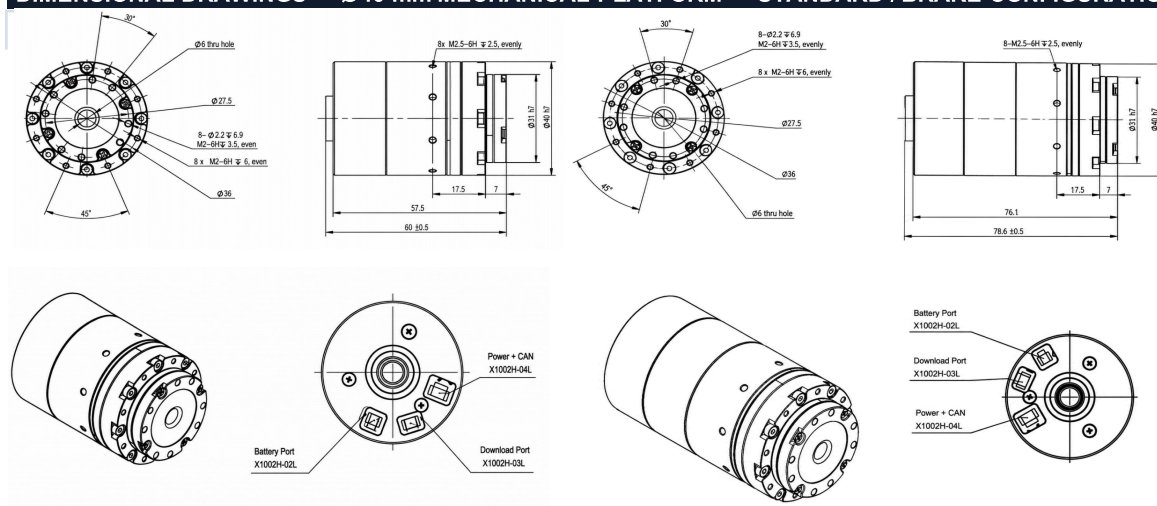
Base model: AHM-[module diameter]-[rounded peak torque]-R[ratio]. Add -B for brake, -E2 for dual encoder, and -EC for EtherCAT where required. The torque field is rounded to the nearest whole Nm for identification; the technical tables show the actual value.

MECHANICAL PLATFORM Ø40 mm

2 RATIO OPTIONS | Ø40 mm MODULE | 3.3–4.8 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-040-003-R51	AHM-040-005-R101
Reduction Ratio	:1	51	101
Start / Stop Peak Torque	Nm	3.3	4.8
Max. Average Load Torque — Robot	Nm	2.3	3.3
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	1.8	2.4
Output Peak Speed	rpm	118	59
Rated Speed at 1/2 Rated Torque	rpm	90	45
Backlash	arcsec	40	40
Rated Power	W	30	30
Supply Voltage	VDC	24–48	24–48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional
Communication	—	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 0.06	0 / 0.06
Torsional Stiffness	10^4 N/rad	0.04	0.09
Allowable Radial Load	kN	3.19	3.19
Allowable Axial Load	kN	6.56	6.56
Allowable Bending Moment	Nm	38	38
Length — No Brake / Brake	mm	60±0.5 / 78.6±0.5	60±0.5 / 78.6±0.5
Through Bore	mm	6	6
Weight — No Brake / Brake	kg	0.19 / 0.27	0.19 / 0.27
Inertia — No Brake / Brake	g·cm²	27.4 / 45.1	27.4 / 45.1

DIMENSIONAL DRAWINGS — Ø40 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



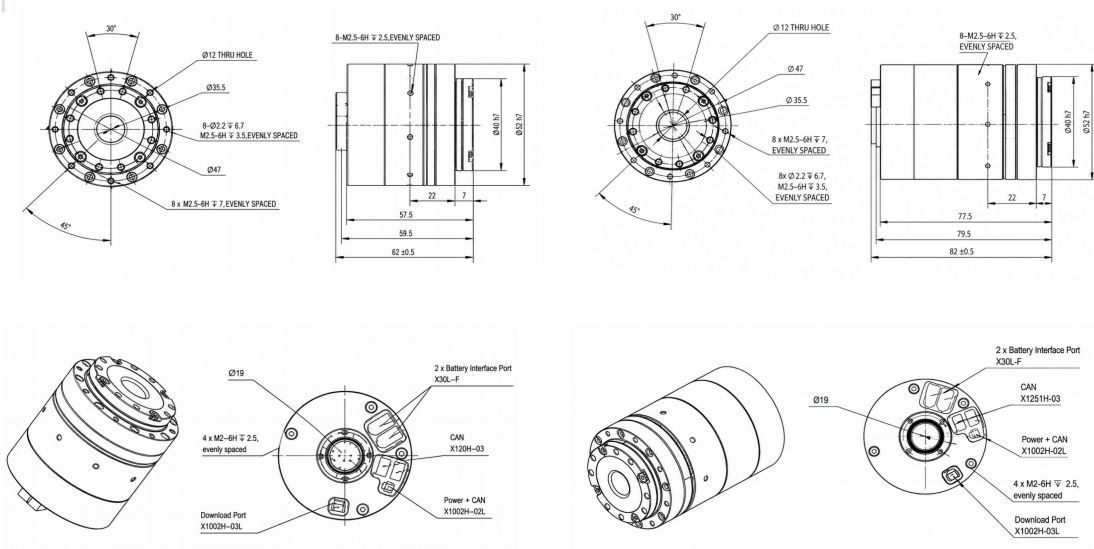
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø52 mm

2 RATIO OPTIONS | Ø52 mm MODULE | 8.3–11 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-052-008-R51	AHM-052-011-R101
Reduction Ratio	:1	51	101
Start / Stop Peak Torque	Nm	8.3	11
Max. Average Load Torque — Robot	Nm	5.5	8.9
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	3.5	5
Output Peak Speed	rpm	118	59
Rated Speed at 1/2 Rated Torque	rpm	80	40
Backlash	arcsec	40	30
Rated Power	W	50	50
Supply Voltage	VDC	24–48	24–48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional
Communication	—	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 0.15	0 / 0.15
Torsional Stiffness	10 ⁴ N/rad	0.22	0.27
Allowable Radial Load	kN	5.31	5.31
Allowable Axial Load	kN	10.59	10.59
Allowable Bending Moment	Nm	82	82
Length — No Brake / Brake	mm	62±0.5 / 82±0.5	62±0.5 / 82±0.5
Through Bore	mm	12	12
Weight — No Brake / Brake	kg	0.32 / 0.42	0.32 / 0.42
Inertia — No Brake / Brake	g·cm ²	73 / 116.2	73 / 116.2

DIMENSIONAL DRAWINGS — Ø52 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



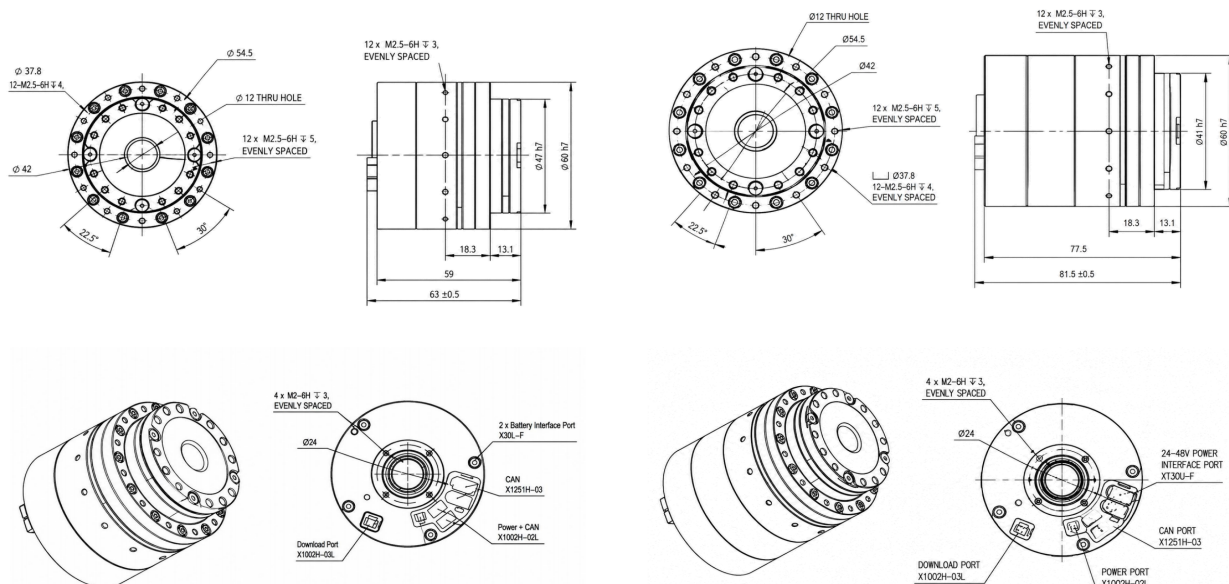
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization.
Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø60 mm

3 RATIO OPTIONS | Ø60 mm MODULE | 23–34 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-060-023-R51	AHM-060-029-R81	AHM-060-034-R101
Reduction Ratio	:1	51	81	101
Start / Stop Peak Torque	Nm	23	29	34
Max. Average Load Torque — Robot	Nm	8.6	13.5	13.5
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	6.6	9.6	9.6
Output Peak Speed	rpm	97	61	49
Rated Speed at 1/2 Rated Torque	rpm	75	46	37
Backlash	arcsec	20	20	10
Rated Power	W	85	85	85
Supply Voltage	VDC	24–48	24–48	24–48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional
Communication	—	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 0.03	0 / 0.03	0 / 0.03
Torsional Stiffness	10 ⁴ N/rad	0.32	0.45	0.45
Allowable Radial Load	kN	6.8	6.8	6.8
Allowable Axial Load	kN	15.4	15.4	15.4
Allowable Bending Moment	Nm	146	146	146
Length — No Brake / Brake	mm	63±0.5 / 81.5±0.5	63±0.5 / 81.5±0.5	63±0.5 / 81.5±0.5
Through Bore	mm	12	12	12
Weight — No Brake / Brake	kg	0.45 / 0.58	0.45 / 0.58	0.45 / 0.58
Inertia — No Brake / Brake	g·cm ²	158.8 / 228.8	158.8 / 228.8	158.8 / 228.8

DIMENSIONAL DRAWINGS — Ø60 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.