

Large harmonic platforms for higher structural capacity and larger robotic installation interfaces.

PLATFORM SELECTION

Platform	Motor Ø (mm)	Module Ø (mm)	Available Ratios	Peak Torque Range (Nm)	Rated Power (W)	Weight - No Brake (kg)	Communication
AHM-097 series	80	97	51 / 81 / 101 / 121 / 161	121-217	450	1.5	CAN / EtherCAT
AHM-110 series	80	110	51 / 81 / 101 / 121 / 161	121-217	450	2.06	CAN / EtherCAT
AHM-120 series	100	120	51 / 81 / 101 / 121 / 161	267-459	720	2.52	CAN / EtherCAT

MODEL CONFIGURATION

Public model: AHM-[module diameter]-[catalog peak torque]-R[ratio]. Examples: AHM-097-121-R51 and AHM-120-459-R161. Add -B for brake, -E2 for dual encoder and -EC for EtherCAT only when those options are included. The technical table remains the authority for actual performance values and operating conditions.

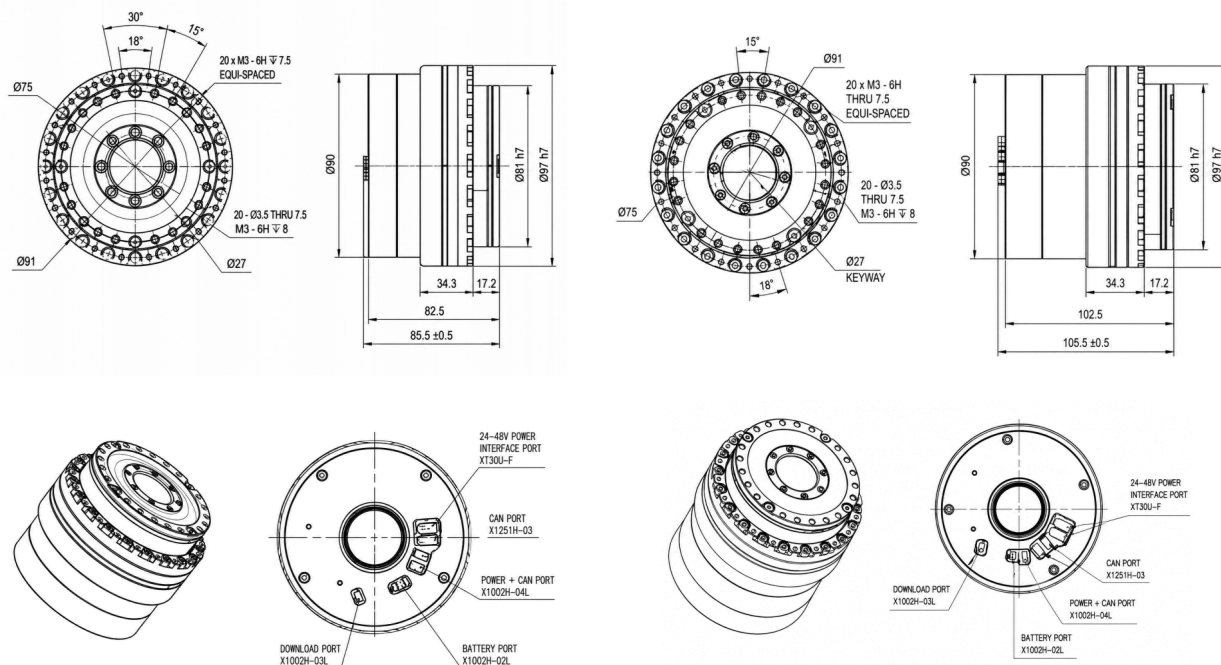
Detailed mechanical dimensions, continuous torque, load limits and option configurations are listed on the corresponding platform sheets.

MECHANICAL PLATFORM Ø97 mm

5 RATIO OPTIONS | Ø97 mm MODULE | 121-217 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-097-121-R51	AHM-097-169-R81	AHM-097-194-R101	AHM-097-207-R121	AHM-097-217-R161
Reduction Ratio	:1	51	81	101	121	161
Start / Stop Peak Torque	Nm	121	169	194	207	217
Max. Average Load Torque - Robot	Nm	68.5	107	133	133	133
Rated Torque at 2000 rpm / Ratio - Industrial	Nm	48	78	84	84	84
Output Peak Speed	rpm	65	43	36	30	22
Rated Speed at 1/2 Rated Torque	rpm	54	35	27	23	17
Backlash	arcsec	20	20	10	10	10
Rated Power	W	450	450	450	450	450
Supply Voltage	VDC	24-48	24-48	24-48	24-48	24-48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional
Communication	-	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque - No Brake / Brake	Nm	0 / 2	0 / 2	0 / 2	0 / 2	0 / 2
Torsional Stiffness	10 ⁴ N/rad	2.38	2.95	2.92	2.95	2.95
Allowable Radial Load	kN	19.34	19.34	19.34	19.34	19.34
Allowable Axial Load	kN	43.95	43.95	43.95	43.95	43.95
Allowable Bending Moment	Nm	710	710	710	710	710
Length - No Brake / Brake	mm	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5
Through Bore	mm	27	27	27	27	27
Weight - No Brake / Brake	kg	1.5 / 1.63	1.5 / 1.63	1.5 / 1.63	1.5 / 1.63	1.5 / 1.63
Inertia - No Brake / Brake	g·cm ²	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1

DIMENSIONAL DRAWINGS — Ø97 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



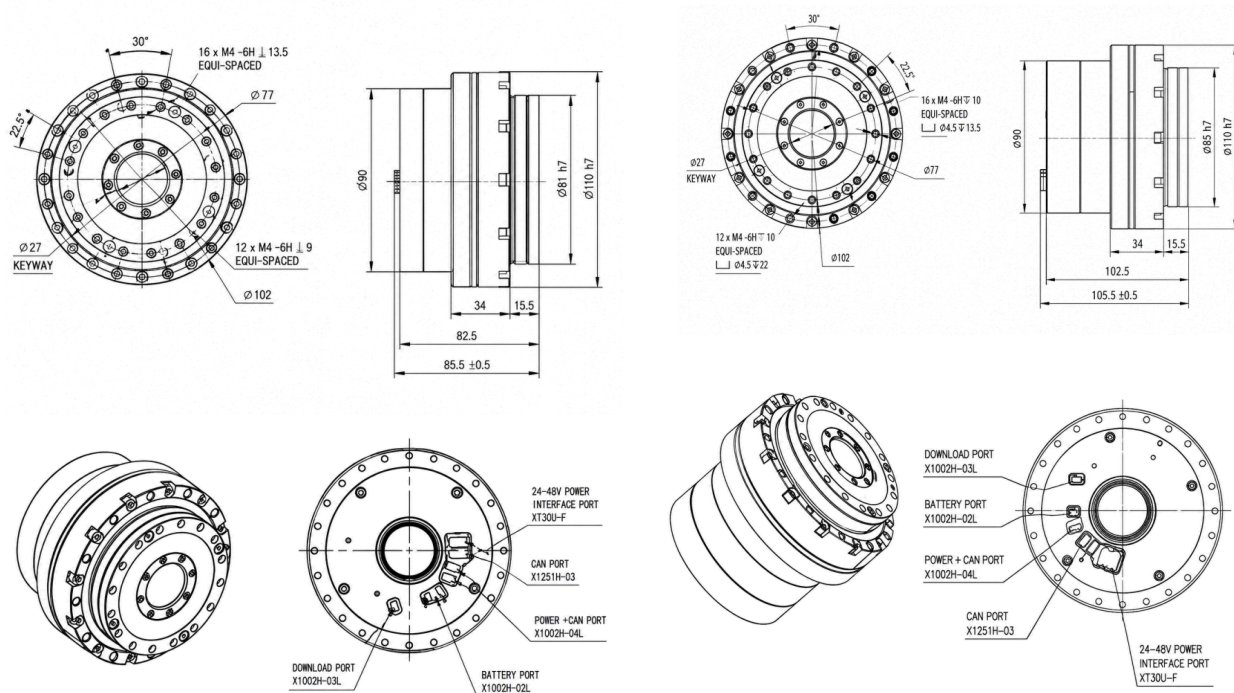
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø110 mm

5 RATIO OPTIONS | Ø110 mm MODULE | 121-217 Nm START/ STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-110-121-R51	AHM-110-169-R81	AHM-110-194-R101	AHM-110-207-R121	AHM-110-217-R161
Reduction Ratio	:1	51	81	101	121	161
Start / Stop Peak Torque	Nm	121	169	194	207	217
Max. Average Load Torque - Robot	Nm	68.5	107	133	133	133
Rated Torque at 2000 rpm / Ratio - Industrial	Nm	48	78	84	84	84
Output Peak Speed	rpm	65	43	36	30	22
Rated Speed at 1/2 Rated Torque	rpm	54	35	27	23	17
Backlash	arcsec	20	20	10	10	10
Rated Power	W	450	450	450	450	450
Supply Voltage	VDC	24-48	24-48	24-48	24-48	24-48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional
Communication	-	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque - No Brake / Brake	Nm	0 / 2	0 / 2	0 / 2	0 / 2	0 / 2
Torsional Stiffness	10 ⁴ N/rad	2.38	2.95	2.92	2.95	2.95
Allowable Radial Load	kN	35.8	35.8	35.8	35.8	35.8
Allowable Axial Load	kN	81.36	81.36	81.36	81.36	81.36
Allowable Bending Moment	Nm	260	260	260	260	260
Length - No Brake / Brake	mm	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5	85.5±0.5 / 105.5±0.5
Through Bore	mm	27	27	27	27	27
Weight - No Brake / Brake	kg	2.06 / 2.26	2.06 / 2.26	2.06 / 2.26	2.06 / 2.26	2.06 / 2.26
Inertia - No Brake / Brake	g·cm ²	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1	1477.6 / 1761.1

DIMENSIONAL DRAWINGS — Ø110 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



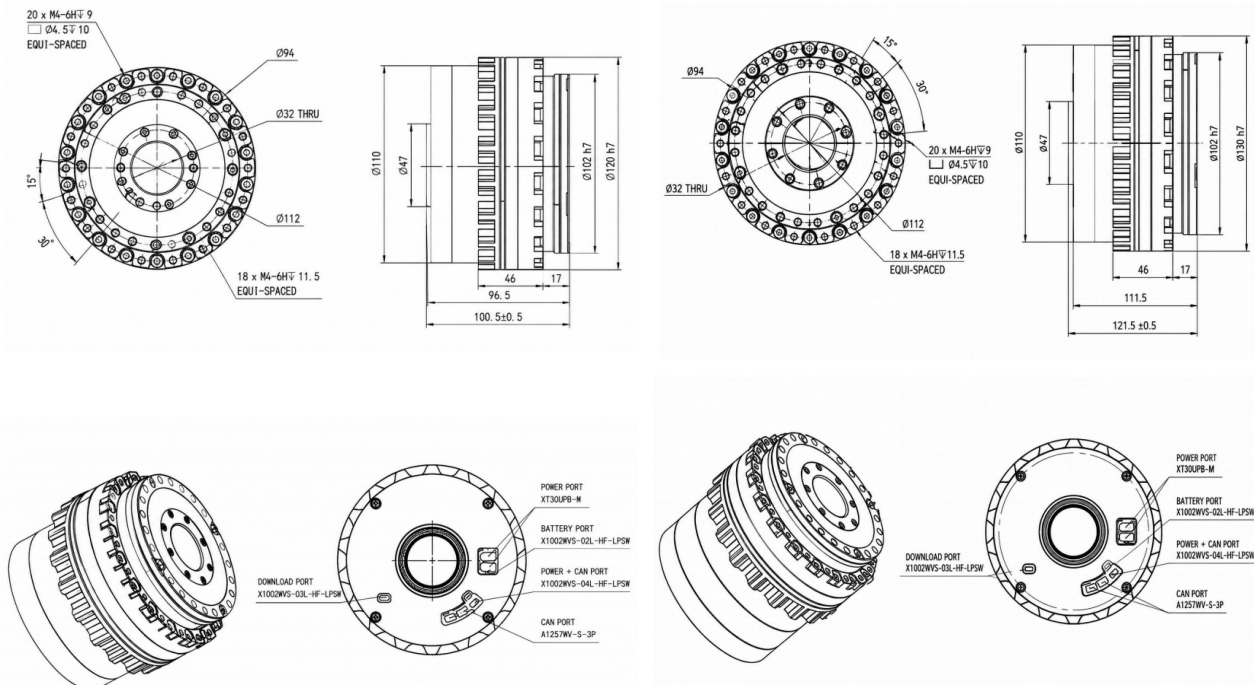
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø120 mm

5 RATIO OPTIONS | Ø120 mm MODULE | 267-459 Nm START/STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-120-267-R51	AHM-120-376-R81	AHM-120-411-R101	AHM-120-436-R121	AHM-120-459-R161
Reduction Ratio	:1	51	81	101	121	161
Start / Stop Peak Torque	Nm	267	376	411	436	459
Max. Average Load Torque - Robot	Nm	133	206	267	267	267
Rated Torque at 2000 rpm / Ratio - Industrial	Nm	94	146	169	169	169
Output Peak Speed	rpm	55	37	29	24	18
Rated Speed at 1/2 Rated Torque	rpm	44	29	22	18	12
Backlash	arcsec	20	20	10	10	10
Rated Power	W	720	720	720	720	720
Supply Voltage	VDC	24-48	24-48	24-48	24-48	24-48
Encoder Resolution	bit	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional	16; dual encoder optional
Communication	-	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque - No Brake / Brake	Nm	0 / 4	0 / 4	0 / 4	0 / 4	0 / 4
Torsional Stiffness	10 ⁴ N/rad	5.13	6.37	6.37	6.37	6.37
Allowable Radial Load	kN	25.11	25.11	25.11	25.11	25.11
Allowable Axial Load	kN	57.06	57.06	57.06	57.06	57.06
Allowable Bending Moment	Nm	1860	1860	1860	1860	1860
Length - No Brake / Brake	mm	100.5±0.5 / 121.5±0.5	100.5±0.5 / 121.5±0.5	100.5±0.5 / 121.5±0.5	100.5±0.5 / 121.5±0.5	100.5±0.5 / 121.5±0.5
Through Bore	mm	32	32	32	32	32
Weight - No Brake / Brake	kg	2.52 / 3.21	2.52 / 3.21	2.52 / 3.21	2.52 / 3.21	2.52 / 3.21
Inertia - No Brake / Brake	g·cm ²	3910.2 / 4744.7	3910.2 / 4744.7	3910.2 / 4744.7	3910.2 / 4744.7	3910.2 / 4744.7

DIMENSIONAL DRAWINGS — Ø110 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.