

Mid-size harmonic platforms for robot arms, collaborative robots and general integrated motion axes.

MODEL SELECTION

Model	Module Ø	Start / Stop Peak Torque (Nm)	Reduction Ratio	Rated Power (W)	Weight — No Brake (kg)	Communication
AHM-070-023-R51	70 mm	23	51	85	0.66 / 0.78	CAN / EtherCAT
AHM-070-029-R81	70 mm	29	81	85	0.66 / 0.78	CAN / EtherCAT
AHM-070-034-R101	70 mm	34	101	85	0.66 / 0.78	CAN / EtherCAT
AHM-070-042-R51	70 mm	42	51	230	0.73 / 0.8	CAN / EtherCAT
AHM-070-053-R81	70 mm	53	81	230	0.73 / 0.8	CAN / EtherCAT
AHM-070-066-R101	70 mm	66	101	230	0.73 / 0.8	CAN / EtherCAT
AHM-070-066-R121	70 mm	66	121	230	0.73 / 0.8	CAN / EtherCAT
AHM-080-042-R51	80 mm	42	51	230	1.03 / 1.2	CAN / EtherCAT
AHM-080-053-R81	80 mm	53	81	230	1.03 / 1.2	CAN / EtherCAT
AHM-080-066-R101	80 mm	66	101	230	1.03 / 1.2	CAN / EtherCAT
AHM-080-066-R121	80 mm	66	121	230	1.03 / 1.2	CAN / EtherCAT
AHM-080-069-R51	80 mm	69	51	340	0.9 / 1.11	CAN / EtherCAT
AHM-080-091-R81	80 mm	91	81	340	0.9 / 1.11	CAN / EtherCAT
AHM-080-102-R101	80 mm	102	101	340	0.9 / 1.11	CAN / EtherCAT
AHM-080-108-R121	80 mm	108	121	340	0.9 / 1.11	CAN / EtherCAT
AHM-090-069-R51	90 mm	69	51	340	1.27 / 1.5	CAN / EtherCAT
AHM-090-091-R81	90 mm	91	81	340	1.27 / 1.5	CAN / EtherCAT
AHM-090-102-R101	90 mm	102	101	340	1.27 / 1.5	CAN / EtherCAT
AHM-090-108-R121	90 mm	108	121	340	1.27 / 1.5	CAN / EtherCAT

MODEL CONFIGURATION

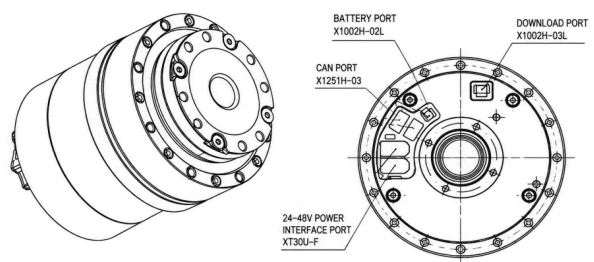
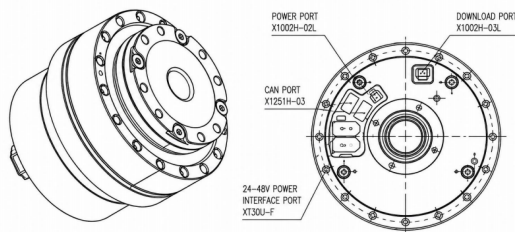
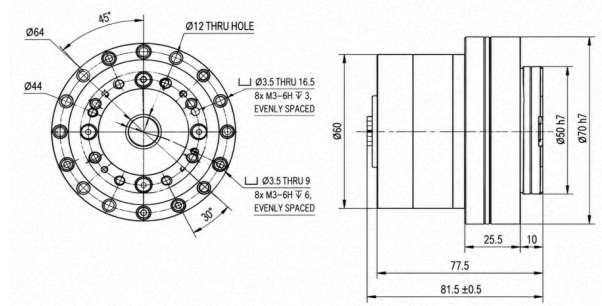
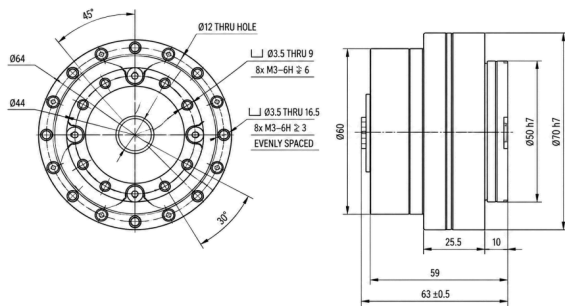
Base model: AHM-[module diameter]-[rounded peak torque]-R[ratio]. Add -B for brake, -E2 for dual encoder, and -EC for EtherCAT where required. The torque field is rounded to the nearest whole Nm for identification; technical tables show actual values.

MECHANICAL PLATFORM Ø70 mm

3 RATIO OPTIONS | Ø70 mm MODULE | 23–34 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-070-023-R51	AHM-070-029-R81	AHM-070-034-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 / 0.3	0 / 0.3	0 / 0.3
Torsional Stiffness	10 ⁴ N/rad	0.32 / 0.45	0.32 / 0.45	0.32 / 0.45
Allowable Radial Load	kN	8.6	8.6	8.6
Allowable Axial Load	kN	19.55	19.55	19.55
Allowable Bending Moment	Nm	74	74	74
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	0.66 / 0.78	0.66 / 0.78	0.66 / 0.78

DIMENSIONAL DRAWINGS — Ø70 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



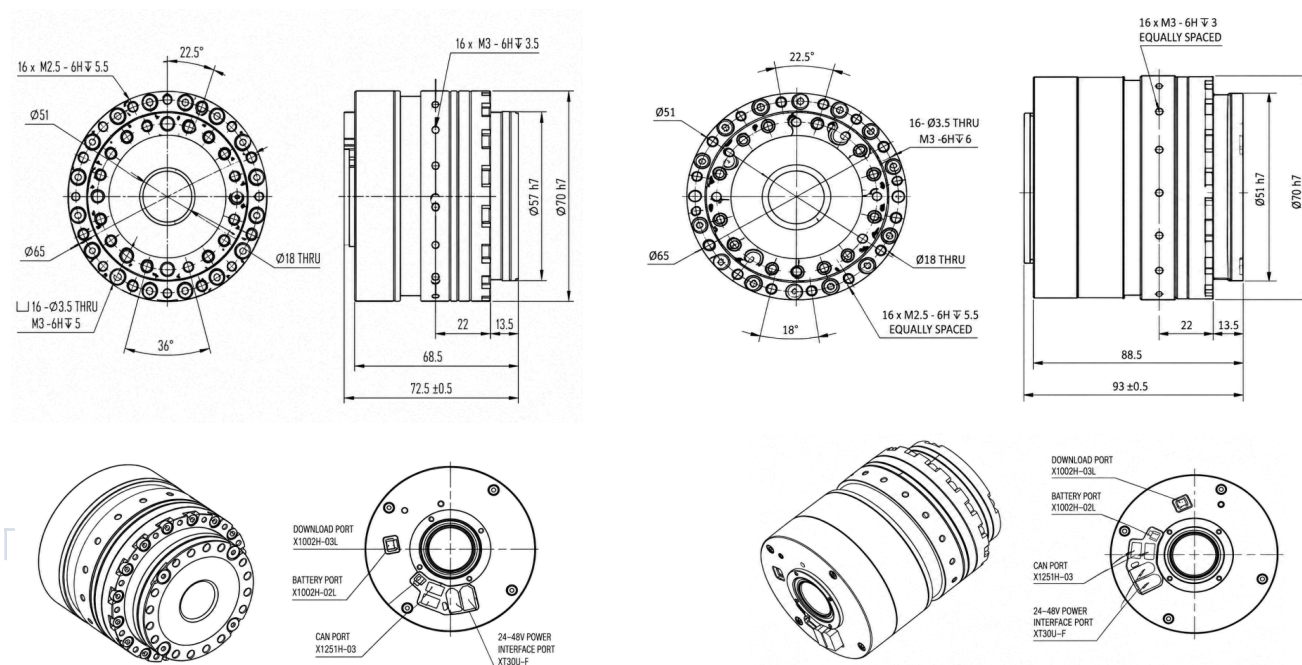
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø70 mm

4 RATIO OPTIONS | Ø70 mm MODULE | 42–66 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-070-042-R51	AHM-070-053-R81	AHM-070-066-R101	AHM-070-066-R121
Reduction Ratio	:1	51	81	101	121
Start / Stop Peak Torque	Nm	42	53	66	66
Max. Average Load Torque — Robot	Nm	32	33	49	49
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	19.8	27.5	30	30
Output Peak Speed	rpm	82	51	41	32
Rated Speed at 1/2 Rated Torque	rpm	68	43	34	24
Backlash	arcsec	20	20	10	10
Rated Power	W	230	230	230	230
Supply Voltage	VDC	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
Communication	—	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 1	0 / 1	0 / 1	0 / 1
Torsional Stiffness	10 ⁴ N/rad	0.77 / 0.95	0.77 / 0.95	0.77 / 0.95	0.77 / 0.95
Allowable Radial Load	kN	8.4	8.4	8.4	8.4
Allowable Axial Load	kN	19.1	19.1	19.1	19.1
Allowable Bending Moment	Nm	218	218	218	218
Length — No Brake / Brake	mm	72.5±0.5 / 93±0.5	72.5±0.5 / 93±0.5	72.5±0.5 / 93±0.5	72.5±0.5 / 93±0.5
Through Bore	mm	18	18	18	18
Weight — No Brake / Brake	kg	0.73 / 0.8	0.73 / 0.8	0.73 / 0.8	0.73 / 0.8

DIMENSIONAL DRAWINGS — Ø70 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



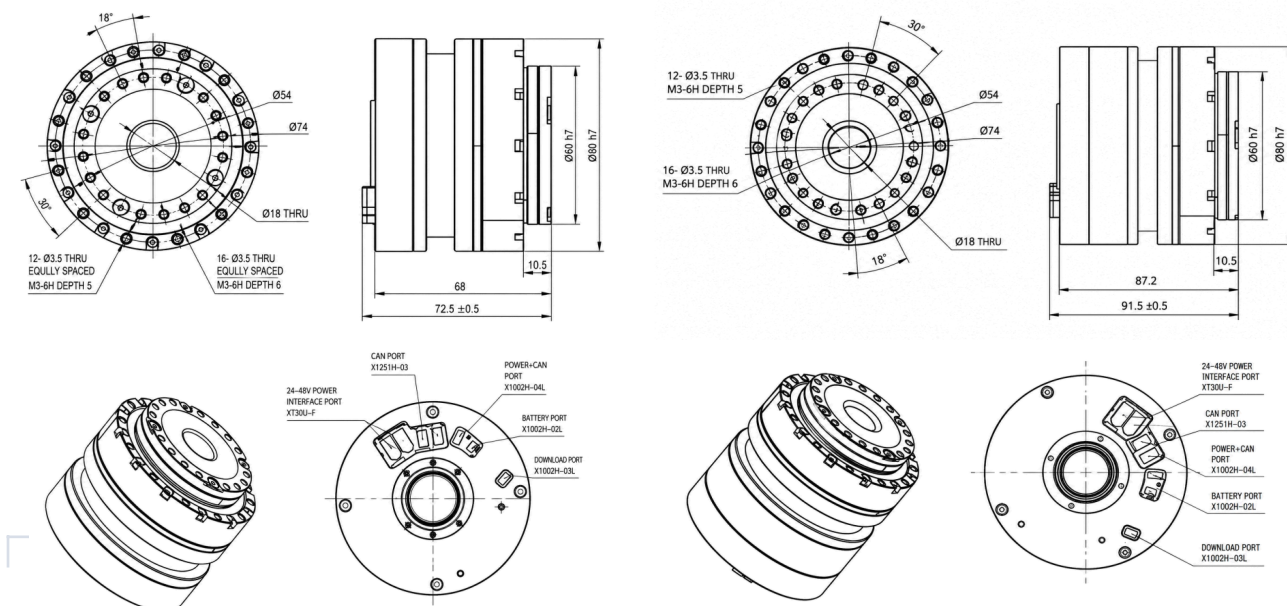
condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø80 mm

4 RATIO OPTIONS | Ø80 mm MODULE | 42–66 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-080-042-R51	AHM-080-053-R81	AHM-080-066-R101	AHM-080-066-R121
Reduction Ratio	:1	51	81	101	121
Start / Stop Peak Torque	Nm	42	53	66	66
Max. Average Load Torque — Robot	Nm	32	33	49	49
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	19.8	27.5	30	30
Output Peak Speed	rpm	82	51	41	32
Rated Speed at 1/2 Rated Torque	rpm	68	43	34	24
Backlash	arcsec	20	20	10	10
Rated Power	W	230	230	230	230
Supply Voltage	VDC	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
Communication	—	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 1	0 / 1	0 / 1	0 / 1
Torsional Stiffness	10 ⁴ N/rad	0.77 / 0.95	0.77 / 0.95	0.77 / 0.95	0.77 / 0.95
Allowable Radial Load	kN	16.3	16.3	16.3	16.3
Allowable Axial Load	kN	37.05	37.05	37.05	37.05
Allowable Bending Moment	Nm	124	124	124	124
Length — No Brake / Brake	mm	72.5±0.5 / 91.5±0.5	72.5±0.5 / 91.5±0.5	72.5±0.5 / 91.5±0.5	72.5±0.5 / 91.5±0.5
Through Bore	mm	18	18	18	18
Weight — No Brake / Brake	kg	1.03 / 1.2	1.03 / 1.2	1.03 / 1.2	1.03 / 1.2

DIMENSIONAL DRAWINGS — Ø80 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



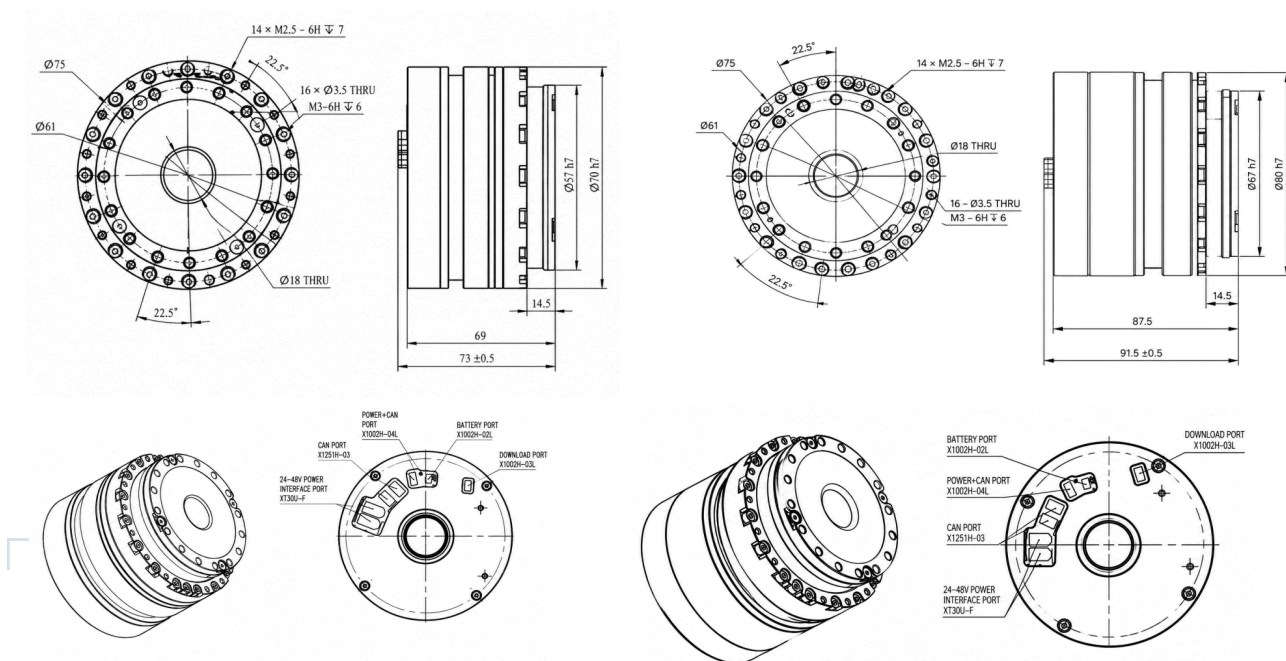
Operating environment: Standard operating range -10 to 45°C. Operation from -40 to -10°C or 46 to 70°C requires customization. Store at -30 to 60°C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø80 mm

4 RATIO OPTIONS | Ø80 mm MODULE | 69–108 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-080-069-R51	AHM-080-091-R81	AHM-080-102-R101	AHM-080-108-R121
Reduction Ratio	:1	51	81	101	121
Start / Stop Peak Torque	Nm	69	91	102	108
Max. Average Load Torque — Robot	Nm	42	58	61	61
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	32	42	50	50
Output Peak Speed	rpm	77	48	40	30
Rated Speed at 1/2 Rated Torque	rpm	61	38	30	25
Backlash	arcsec	20	20	10	10
Rated Power	W	340	340	340	340
Supply Voltage	VDC	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
Communication	—	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 1	0 / 1	0 / 1	0 / 1
Torsional Stiffness	10 ⁴ N/rad	1.24 / 1.52	1.24 / 1.52	1.24 / 1.52	1.24 / 1.52
Allowable Radial Load	kN	10.42	10.42	10.42	10.42
Allowable Axial Load	kN	23.68	23.68	23.68	23.68
Allowable Bending Moment	Nm	320	320	320	320
Length — No Brake / Brake	mm	73±0.5 / 91.5±0.5	73±0.5 / 91.5±0.5	73±0.5 / 91.5±0.5	73±0.5 / 91.5±0.5
Through Bore	mm	18	18	18	18
Weight — No Brake / Brake	kg	0.9 / 1.11	0.9 / 1.11	0.9 / 1.11	0.9 / 1.11

DIMENSIONAL DRAWINGS — Ø80 mm MECHANICAL PLATFORM — STANDARD / BRAKE CONFIGURATION



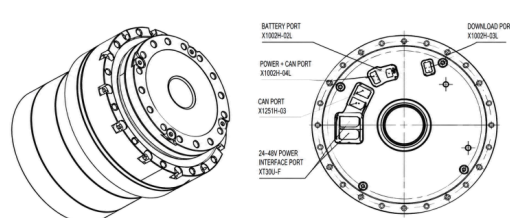
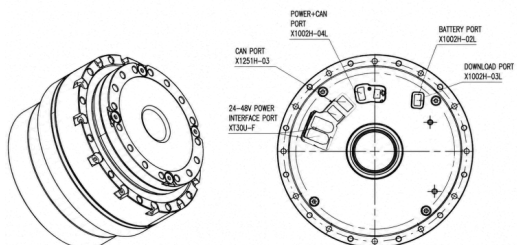
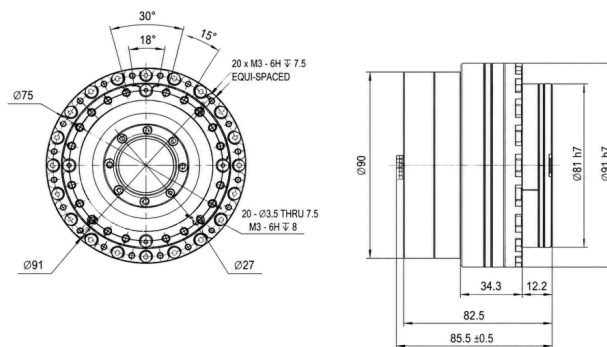
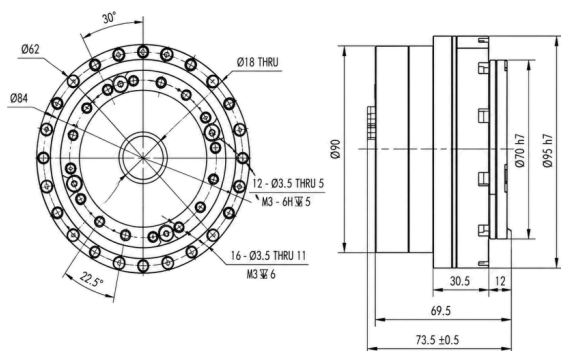
Operating environment: Standard operating range -10 to 45 °C. Operation from -40 to -10 °C or 46 to 70 °C requires customization. Store at -30 to 60 °C. Indoor use only; avoid condensation, dust, corrosive or flammable gas, oil mist, and direct sunlight.

MECHANICAL PLATFORM Ø90 mm

4 RATIO OPTIONS | Ø90 mm MODULE | 69–108 Nm START / STOP PEAK TORQUE | CAN / EtherCAT

Parameter	Unit	AHM-090-069-R51	AHM-090-091-R81	AHM-090-102-R101	AHM-090-108-R121
Reduction Ratio	:1	51	81	101	121
Start / Stop Peak Torque	Nm	69	91	102	108
Max. Average Load Torque — Robot	Nm	42	58	61	61
Rated Torque at 2000 rpm / Ratio — Industrial	Nm	32	42	50	50
Output Peak Speed	rpm	77	48	40	30
Rated Speed at 1/2 Rated Torque	rpm	61	38	30	25
Backlash	arcsec	20	20	10	10
Rated Power	W	340	340	340	340
Supply Voltage	VDC	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
Communication	—	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT	CAN / EtherCAT
Brake Torque — No Brake / Brake	Nm	0 / 1	0 / 1	0 / 1	0 / 1
Torsional Stiffness	10 ⁴ N/rad	1.24 / 1.52	1.24 / 1.52	1.24 / 1.52	1.24 / 1.52
Allowable Radial Load	kN	22	22	22	22
Allowable Axial Load	kN	50	50	50	50
Allowable Bending Moment	Nm	190	190	190	190
Length — No Brake / Brake	mm	73.5±0.5 / 92±0.5	73.5±0.5 / 92±0.5	73.5±0.5 / 92±0.5	73.5±0.5 / 92±0.5
Through Bore	mm	18	18	18	18
Weight — No Brake / Brake	kg	1.27 / 1.5	1.27 / 1.5	1.27 / 1.5	1.27 / 1.5

DIMENSIONAL DRAWINGS — Ø90 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.