

Actuator Solution for Full Scale Robots  
 High Power, High Precision  
 Full Modular Solution  
 Sophisticated Control Algorithms  
 Novel Gear Reduction System



## Specification

Properties	Unit	PH Series			PM Series		
		PH54-200-S500-R	PH54-100-S500-R	<b>PH42-020-S300-R</b>	PM54-060-S250-R	PM54-040-S250-R	PM42-010-S260-R
Continuous Torque [N.m]	Nm	44.7	25.3	5.1	10.1	3.9	1.7
No Load Speed	rpm	33.1	33.3	32.7	33.1	28.4	28
Input Voltage	V	24	24	24	24	24	24
Resolution	Steps	1,003,846	1,003,846	607,500	502,834	502,834	526,374
Dimension (W × H × D)	mm	54 × 126 × 54	54 × 108 × 54	42 × 84 × 42	54 × 126 × 54	54 × 108 × 54	42 × 72 × 42
Weight	g	855	732	340	855	710	270
DC Motor	Type	BLDC (Maxon)	BLDC (Maxon)	Coreless (Maxon)	BLDC (Maxon)	BLDC (Maxon)	Coreless (Maxon)
Gear	Type	Cycloid + Spur	Cycloid + Spur	Cycloid + Spur	Cycloid + Spur	Cycloid + Spur	Cycloid + Spur
Gear Material	Type	Metal	Metal	Metal	Metal	Metal	Metal
Case Material	Type	Metal	Metal	Metal	Metal	Metal	Metal
Power	W	200	100	20	60	40	10
Gear Ratio	-	501.9:1	501.9:1	303.8:1	251.4:1	251.4:1	257.0:1
MCU	-	Cortex-M4 (168[Mhz], 32[bit])	Cortex-M4 (168[Mhz], 32[bit])	Cortex-M4 (168[Mhz], 32[bit])	Cortex-M4 (168[Mhz], 32[bit])	Cortex-M4 (168[Mhz], 32[bit])	Cortex-M4 (168[Mhz], 32[bit])

## Drawing

