

LINEAR ROTARY MOTORS

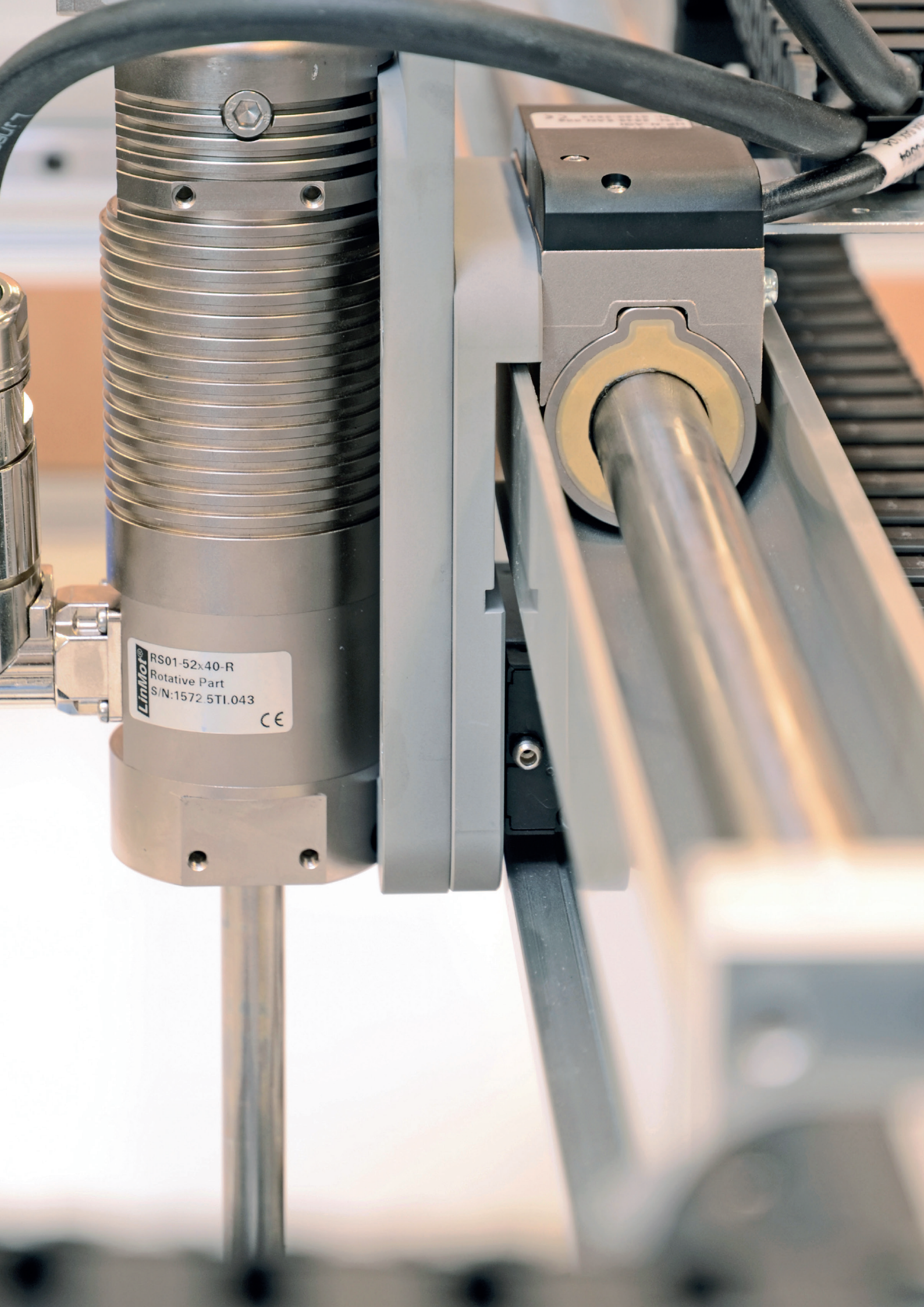
PR01-84



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- ✓ Direct linear drive
- ✓ Direct rotary drive
- ✓ Independent linear and rotary motions
- ✓ Integrated position sensors
- ✓ Integrated temperature monitoring
- ✓ Programmable motion and position profiles
- ✓ Programmable press force
- ✓ Programmable torque

LinMot® RS01-52x40-R
Rotative Part
S/N:1572 5TI.043
CE

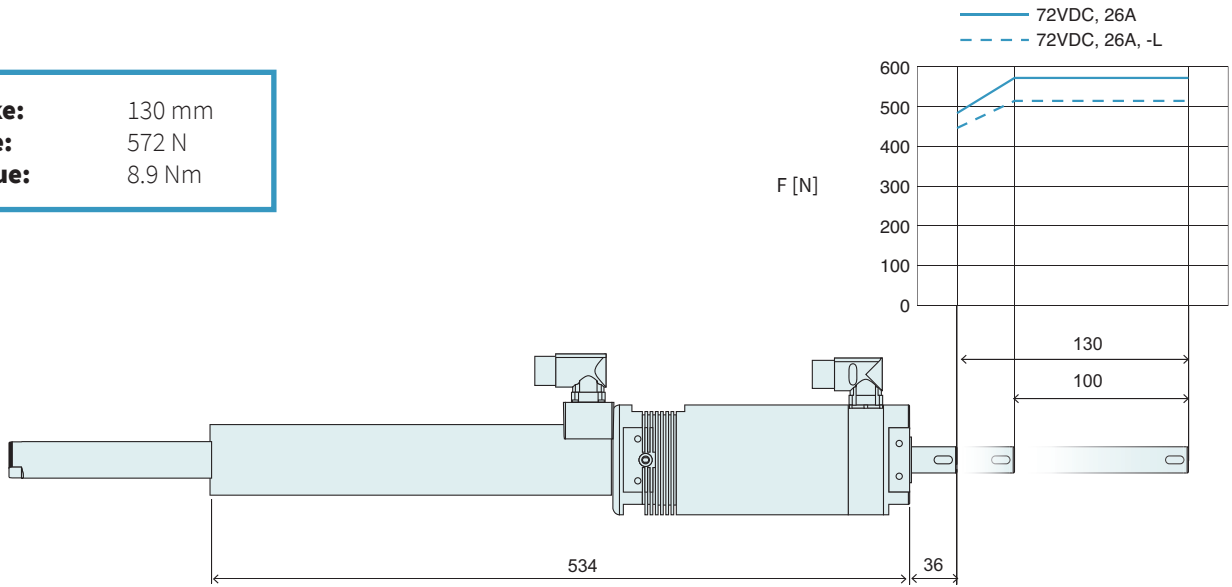


LINEAR ROTARY MOTORS PR01-84

PR01-84x80-C/48x240F-C-100-(L) _____	801
PR01-84x80-C/48x240F-C-150-(L) _____	803
PR01-84x80-C/48x360F-C-100-(L) _____	805
PR01-84x80-C/48x360F-C-150-(L) _____	807
PR01-84x80-C/48x240F-C-300-(L) _____	809
Accessories _____	811

PR01-84x80-C/48x240F-C-100 (-L)

Max. Stroke: 130 mm
Peak Force: 572 N
Peak Torque: 8.9 Nm

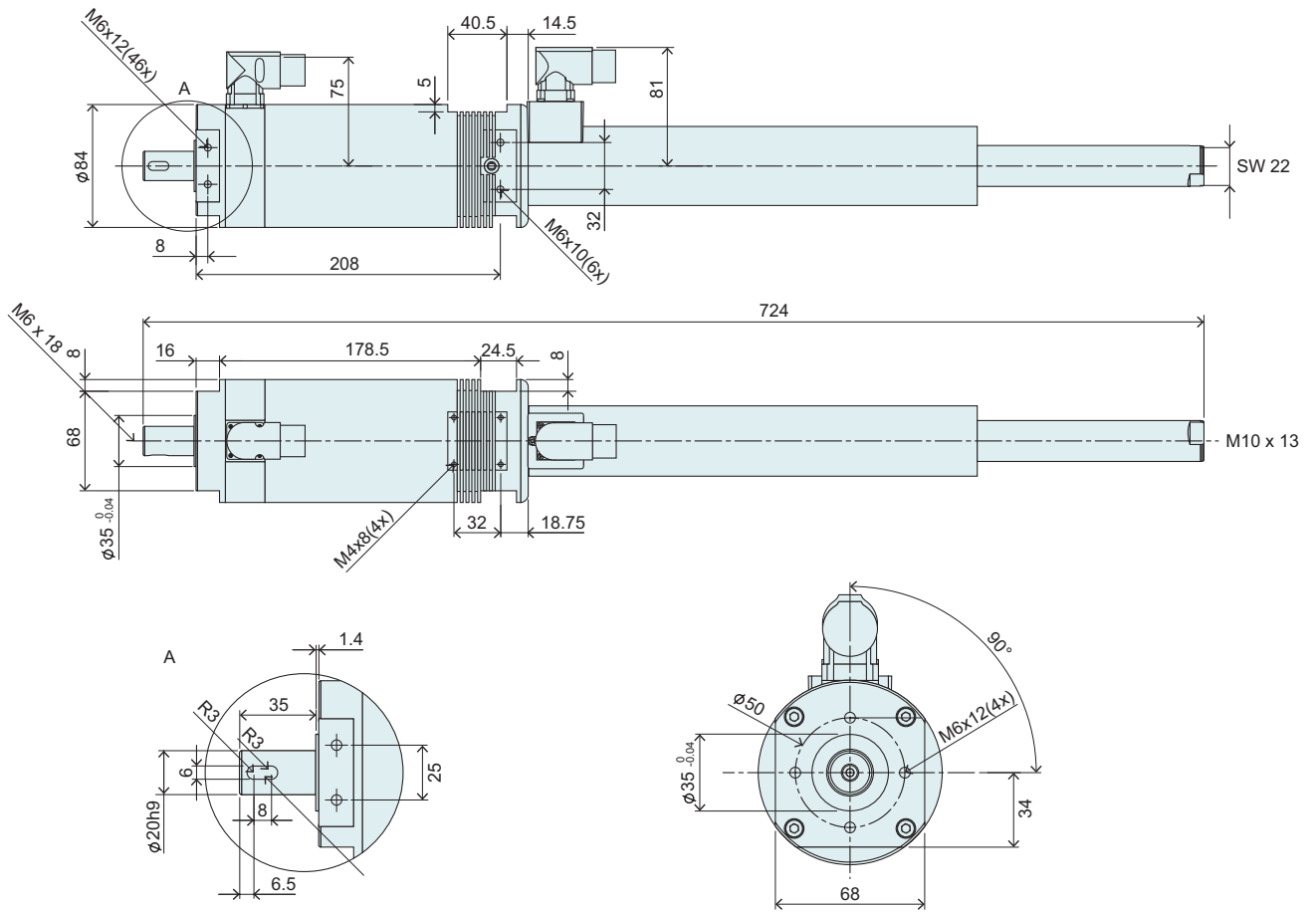


Dimensions in mm

Motor Specifications			
		PR01-84x80-C/48x240F-C-100 (-L)	
Linear Motion			
Extended Stroke ES	mm (in)	130 (5.12)	
Standard Stroke SS	mm (in)	100 (3.94)	
Peak Forc E12x0 - UC	N (lbf)	572 (-L 514)	(128.6 (-L 115.6)) (-L: hollow Shaft version reduced forces)
Constant Force	N (lbf)	145 (-L 130)	(74.2 (-L 29.2))
Constant Force Fan cooling	N (lbf)	255 (-L 230)	(58.0 (-L 51.7))
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(5.0)
Max. Current @ 72VDC	A _{pk}	26	
Max. Velocity @ 72VDC	m/s (in/s)	3	(118)
Position Repeatability	mm (in)	±0.05	(±0.0020)
Linearity	%	±0.15	
Rotary Motion			
Peak Torque (± 10%)	Nm (lbf·in)	8.9	(78.8)
Constant Torque (Halt)	Nm (lbf·in)	1.9	(16.8)
Max. Number of revolutions	rpm	1000	
Torque Constant 1	Nm/A _{pk} (lbf·in/A _{pk})	0.36	(3.19)
Torque Constant 2	Nm/A _{rms} (lbf·in/A _{rms})	0.5035	(4.46)
Max. Current @ 72VDC	A _{pk} / A _{rms}	25 / 17.68	
Position Repeatability	°	±0.05	
Mechanical Data			
Overall length	mm (in)	724	(28.52)
Diameter Linear Unit	mm (in)	48	(1.89)
Diameter Rotary Unit	mm (in)	84	(3.31)
Mass	g (lb)	8850	(19.51)
Linear Moving mass	g (lb)	2450	(5.4)
Rotary Torque of Inertia	kgcm ² (lbf ²)	2	(0.0047)
Axle Diameter	mm (in)	20h9	(0.79)
Through bore-hole		-L Option	Hole diameter 4 mm, connection (front) 1/8" x 7, connection (back) 1/4" x 8
Protection Class			IP64

Note: Hollow Shaft variants have 10% reduced forces

DIMENSIONS

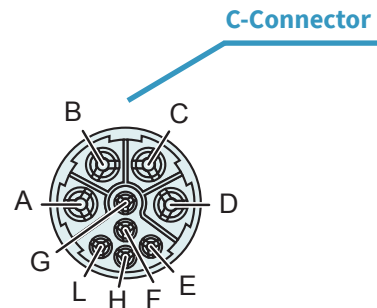


For fit-in key 6x14
DIN6885 -1 Form A

Dimensions in mm

CONNECTORS

Motor Connector Wiring	Linear Unit: C-Connector	Rotary Unit: C-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	A	A	red
Ph 1- / Ph B	B	B	pink
Ph 2+ / Ph C	C	C	blue
Ph 2- / (-)	D	D (not connected)	grey
+5VDC	E	E	white
GND	F	F	inner shield
Sin	G	G	yellow
Cos	H	H	green
Temp.	L	L	black
Shield	Housing	Housing	outer Shield

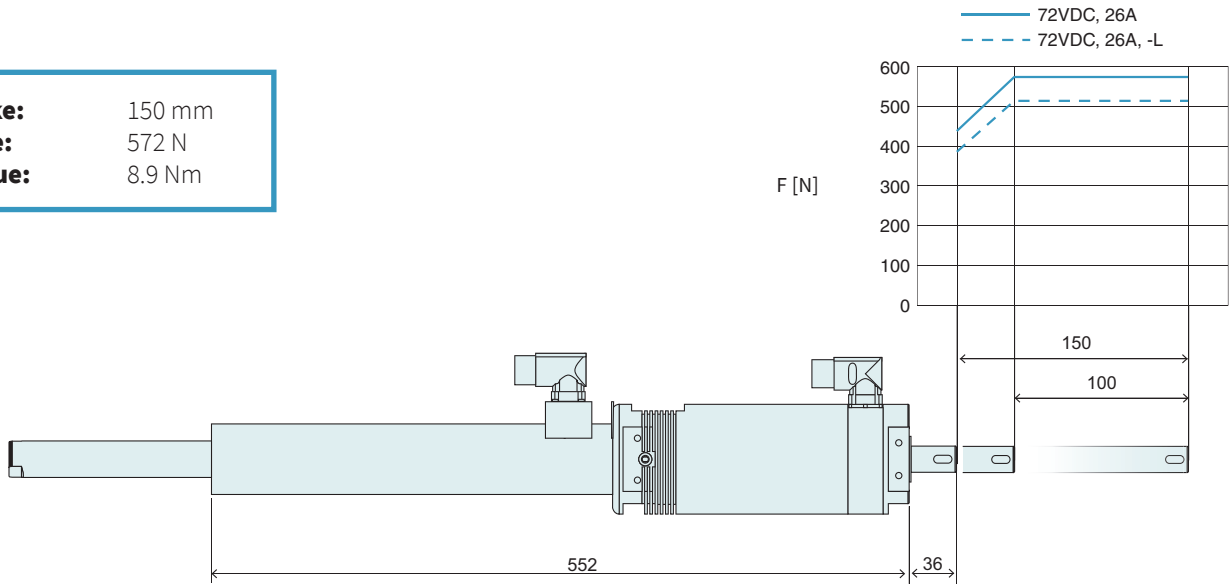


View: Motor connector, plug on

Item	Description	Item-No.
PR01-84x80-C/48x240F-C-100	Linear Rotary Motor	0150-1194
PR01-84x80-C/48x240F-C-100-L	Linear Rotary Motor with hollow Shaft	0150-1196

PR01-84x80-C/48x240F-C-150 (-L)

Max. Stroke: 150 mm
Peak Force: 572 N
Peak Torque: 8.9 Nm



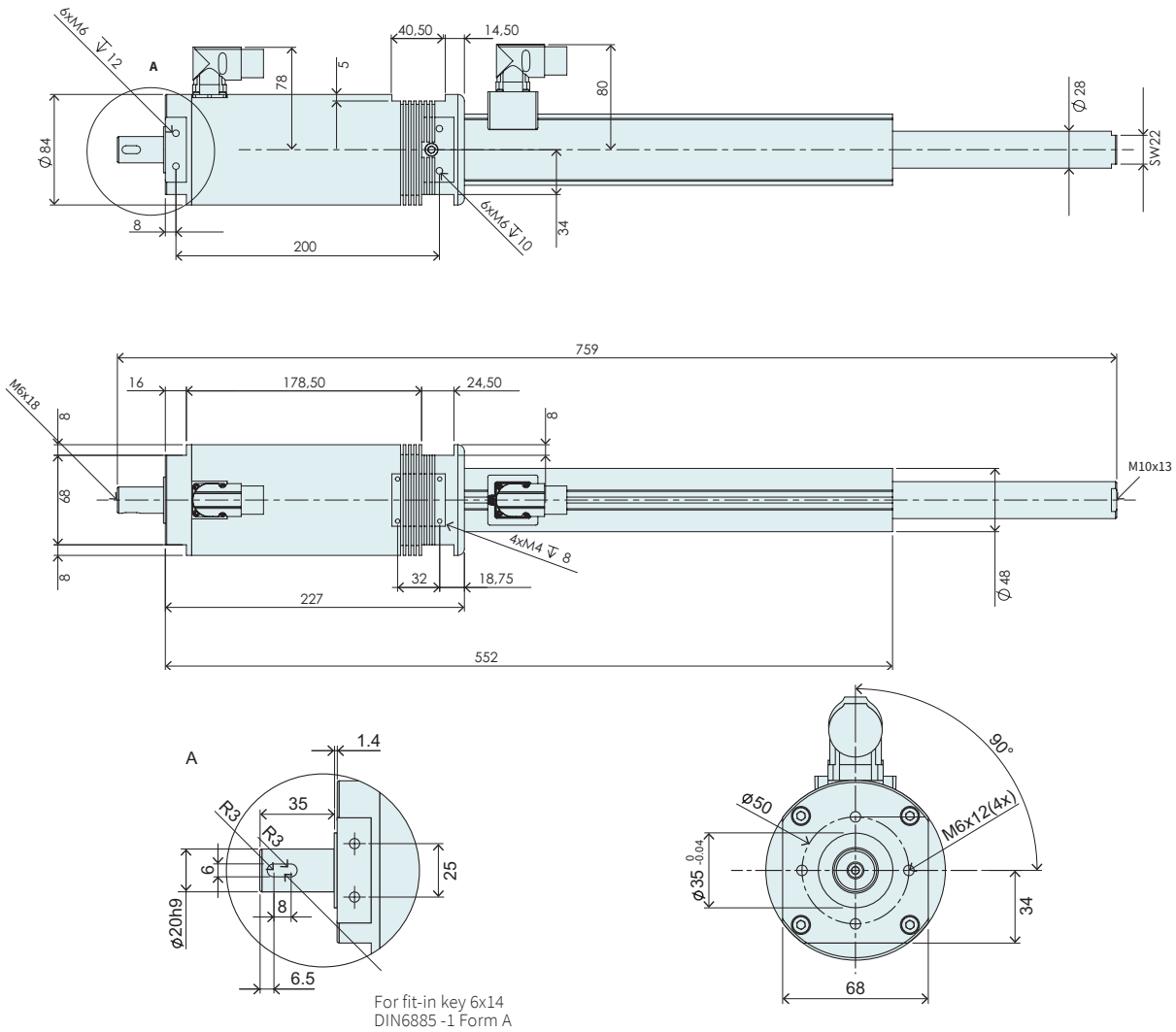
Dimensions in mm

Motor Specifications		PR01-84x80-C/48x240F-C-150 (-L)	
Linear Motion			
Extended Stroke ES	mm (in)	150	(5.91)
Standard Stroke SS	mm (in)	100	(3.94)
Peak Force	N (lbf)	572	(128.6)
Constant Force	N (lbf)	145	(74.2)
Constant Force Fan cooling	N (lbf)	255	(57.3)
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(5.0)
Max. Current @ 72VDC	A _{pk}	26	
Max. Velocity @ 72VDC	m/s (in/s)	3.0	(118)
Position Repeatability	mm (in)	±0.05	(±0.0020)
Linearity	%	±0.15	
Rotary Motion			
Peak Torque (± 10%)	Nm (lbf·in)	8.9	(78.8)
Constant Torque (Halt)	Nm (lbf·in)	1.9	(16.8)
Max. Number of revolutions	rpm	1000	
Torque Constant 1	Nm/A _{pk} (lbf·in/A _{pk})	0.36	(3.19)
Torque Constant 2	Nm/A _{rms} (lbf·in/A _{rms})	0.5035	(4.46)
Max. Current @ 72VDC	A _{pk} / A _{rms}	25 / 17.68	
Position Repeatability	°	±0.05	
Mechanical Data			
Overall length	mm (in)	759	(29.89)
Diameter Linear Unit	mm (in)	48	(1.89)
Diameter Rotary Unit	mm (in)	84	(3.31)
Mass	g (lb)	9000	(19.88)
Linear Moving mass	g (lb)	2600	(5.74)
Rotary Torque of Inertia	kgcm ² (lbF ²)	2.3	(0.0054)
Axle Diameter	mm (in)	20h9	(0.79)
Through bore-hole		-L Option	Hole diameter 4 mm, connection (front) 1/8" x 7, connection (back) 1/4" x 8
Protection Class			IP64

Note: Hollow Shaft variants have 10% reduced forces

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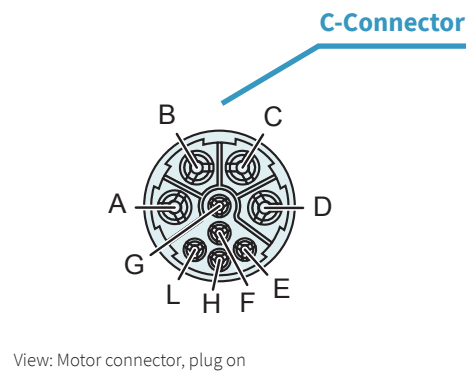
DIMENSIONS



Dimensions in mm

CONNECTORS

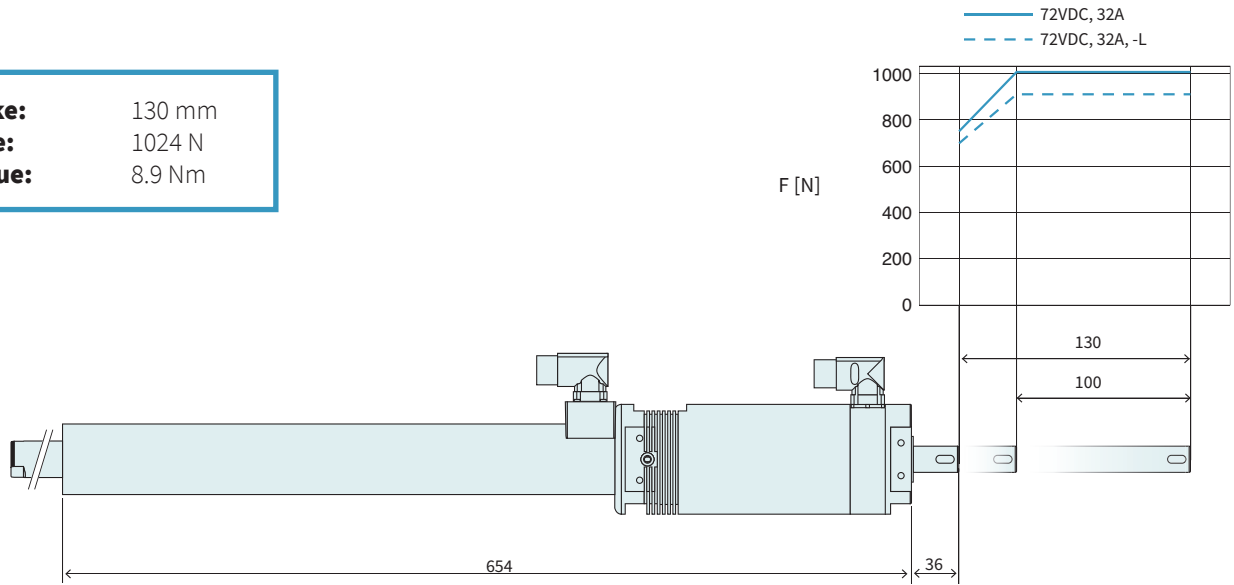
Motor Connector Wiring	Linear Unit: C-Connector	Rotary Unit: C-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	A	A	red
Ph 1- / Ph B	B	B	pink
Ph 2+ / Ph C	C	C	blue
Ph 2- / (-)	D	D (not connected)	grey
+5VDC	E	E	white
GND	F	F	inner shield
Sin	G	G	yellow
Cos	H	H	green
Temp.	L	L	black
Shield	Housing	Housing	outer Shield



Item	Description	Item-No.
PR01-84x80-C/48x240F-C-150	Linear Rotary Motor	0150-1187
PR01-84x80-C/48x240F-C-150-L	Linear Rotary Motor with hollow Shaft	0150-1188

PR01-84x80-C/48x360F-C-100 (-L)

Max. Stroke: 130 mm
Peak Force: 1024 N
Peak Torque: 8.9 Nm

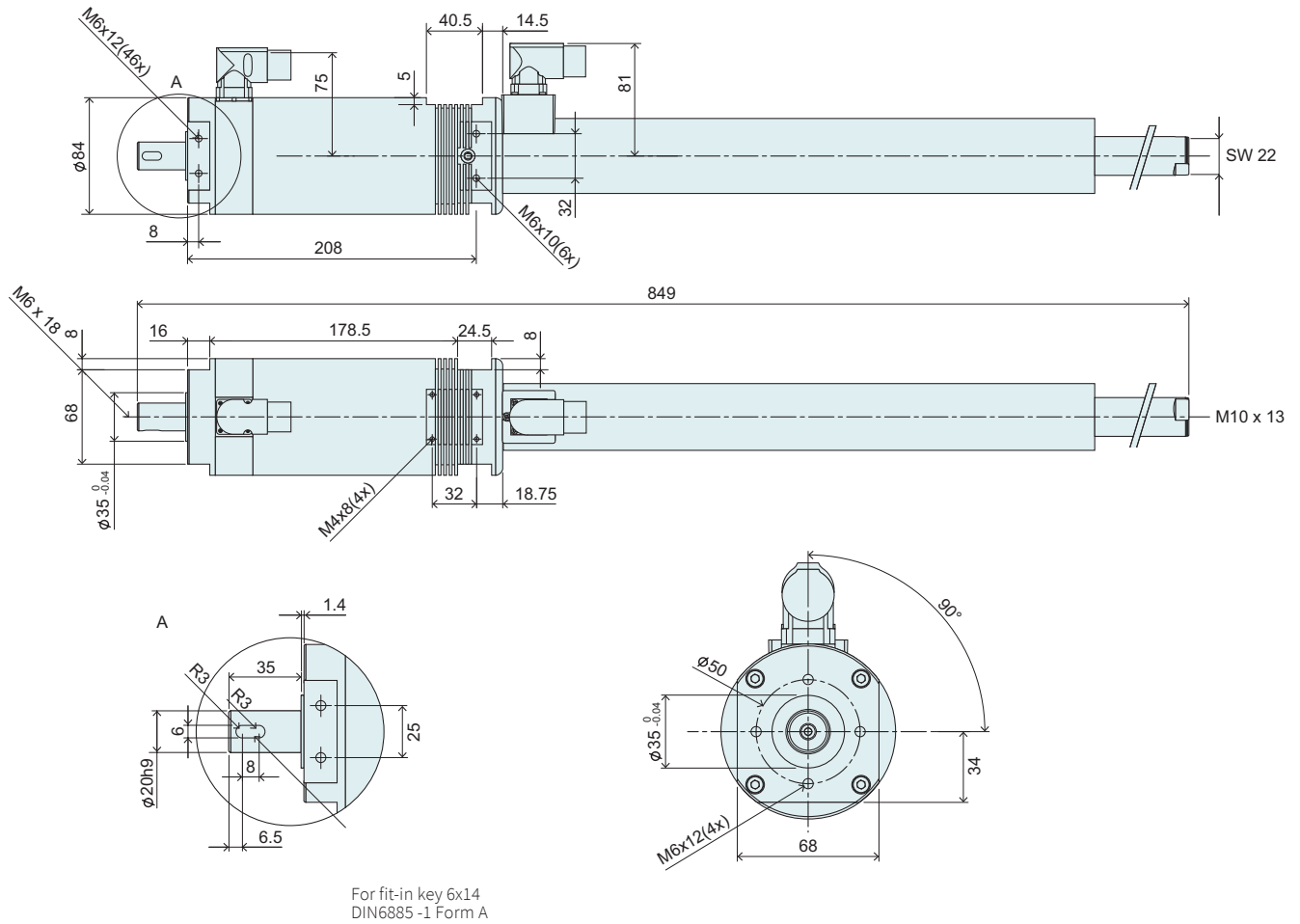


Dimensions in mm

Motor Specifications			
		PR01-84x80-C/48x360F-C-100 (-L)	
Linear Motion			
Extended Stroke ES	mm (in)	130 (5.12)	
Standard Stroke SS	mm (in)	100 (3.94)	
Peak Forc E12x0 - UC	N (lbf)	1024 (-L 921) (230.2 (-L 207.0))	(-L: hollow Shaft version reduced forces)
Constant Force	N (lbf)	203 (-L 182) (45.6 (-L 40.9))	
Constant Force Fan cooling	N (lbf)	354 (-L 319) (79.6 (-L 71.1))	
Force Constant	N/A _{pk} (lbf/A _{pk})	32 (7.2)	
Max. Current @ 72VDC	A _{pk}	32	
Max. Velocity @ 72VDC	m/s (in/s)	2.1 (83)	
Position Repeatability	mm (in)	±0.05 (±0.0020)	
Linearity	%	±0.15	
Rotary Motion			
Peak Torque (± 10%)	Nm (lbf·in)	8.9 (78.8)	
Constant Torque (Halt)	Nm (lbf·in)	1.9 (16.8)	
Max. Number of revolutions	rpm	1000	
Torque Constant 1	Nm/A _{pk} (lbf·in/A _{pk})	0.36 (3.19)	
Torque Constant 2	Nm/A _{rms} (lbf·in/A _{rms})	0.5035 (4.46)	
Max. Current @ 72VDC	A _{pk} / A _{rms}	25 / 17.68	
Position Repeatability	°	±0.05	
Mechanical Data			
Overall length	mm (in)	849 (33.44)	
Diameter Linear Unit	mm (in)	48 (1.89)	
Diameter Rotary Unit	mm (in)	84 (3.31)	
Mass	g (lb)	10480 (23.1)	
Linear Moving mass	g (lb)	2900 (6.39)	
Rotary Torque of Inertia	kgcm ² (lbf ²)	2 (0.0047)	
Axle Diameter	mm (in)	20h9 (0.79)	
Through bore-hole		-L Option	Hole diameter 4 mm, connection (front) 1/8" x 7, connection (back) 1/4" x 8
Protection Class			IP64

Note: Hollow Shaft variants have 10% reduced forces

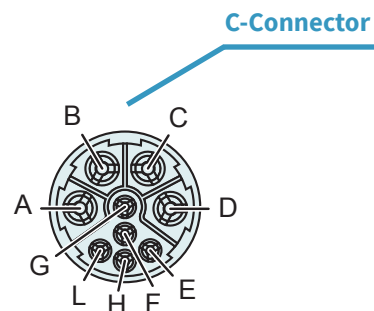
DIMENSIONS



Dimensions in mm

CONNECTORS

Motor Connector Wiring	Linear Unit: C-Connector	Rotary Unit: C-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	A	A	red
Ph 1- / Ph B	B	B	pink
Ph 2+ / Ph C	C	C	blue
Ph 2- / (-)	D	D (not connected)	grey
+5VDC	E	E	white
GND	F	F	inner shield
Sin	G	G	yellow
Cos	H	H	green
Temp.	L	L	black
Shield	Housing	Housing	outer Shield

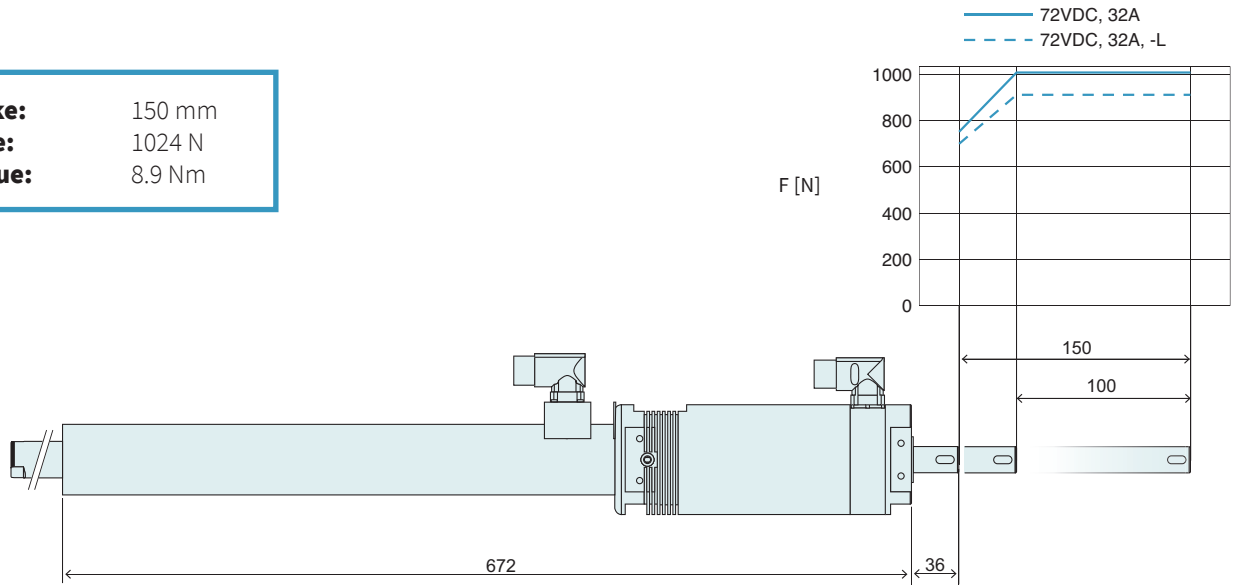


View: Motor connector, plug on

Item	Description	Item-No.
PR01-84x80-C/48x360F-C-100	Linear Rotary Motor	0150-1199
PR01-84x80-C/48x360F-C-100-L	Linear Rotary Motor with hollow Shaft	0150-1200

PR01-84x80-C/48x360F-C-150 (-L)

Max. Stroke: 150 mm
Peak Force: 1024 N
Peak Torque: 8.9 Nm

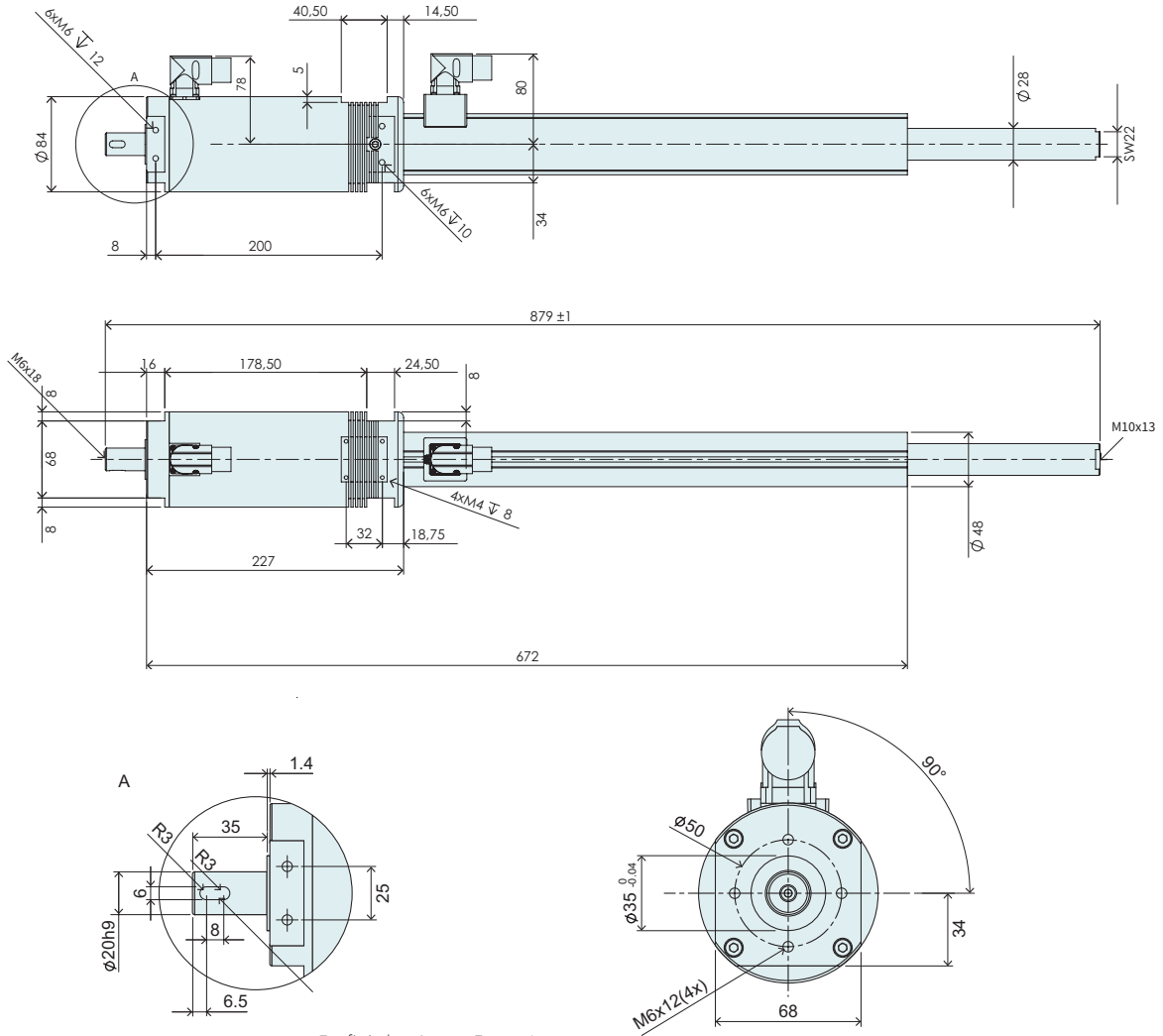


Dimensions in mm

Motor Specifications		PR01-84x80-C/48x360F-C-150 (-L)	
Linear Motion			
Extended Stroke ES	mm (in)	150	(5.91)
Standard Stroke SS	mm (in)	100	(3.94)
Peak Force	N (lbf)	1024	(230.1)
Constant Force	N (lbf)	203	(45.6)
Constant Force Fan cooling	N (lbf)	354	(79.6)
Force Constant	N/A _{pk} (lbf/A _{pk})	32	(7.3)
Max. Current @ 72VDC	A _{pk}	32	
Max. Velocity @ 72VDC	m/s (in/s)	2.1	(84)
Position Repeatability	mm (in)	±0.05	(±0.0020)
Linearity	%	±0.15	
Rotary Motion			
Peak Torque (± 10%)	Nm (lbf·in)	8.9	(78.8)
Constant Torque (Halt)	Nm (lbf·in)	1.9	(16.8)
Max. Number of revolutions	rpm	1000	
Torque Constant 1	Nm/A _{pk} (lbf·in/A _{pk})	0.36	(3.19)
Torque Constant 2	Nm/A _{rms} (lbf·in/A _{rms})	0.5035	(4.46)
Max. Current @ 72VDC	A _{pk} / A _{rms}	25 / 17.68	
Position Repeatability	°	±0.05	
Mechanical Data			
Overall length	mm (in)	879	(34.62)
Diameter Linear Unit	mm (in)	48	(1.89)
Diameter Rotary Unit	mm (in)	84	(3.31)
Mass	g (lb)	11860	(26.2)
Linear Moving mass	g (lb)	2900	(6.4)
Rotary Torque of Inertia	kg·cm ² (lb·ft ²)	2.3	(0.0054)
Axle Diameter	mm (in)	20h9	(0.79)
Through bore-hole		-L Option	Hole diameter 4 mm, connection (front) 1/8" x 7, connection (back) 1/4" x 8
Protection Class			IP64

Note: Hollow Shaft variants have 10% reduced forces

DIMENSIONS



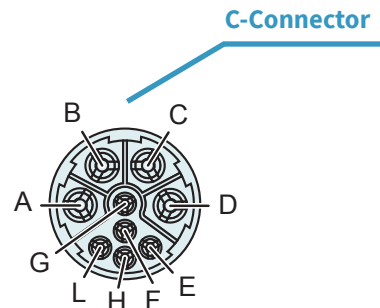
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For fit-in key 6x14- 1 Forma A

Dimensions in mm

CONNECTORS

Motor Connector Wiring	Linear Unit: C-Connector	Rotary Unit: C-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	A	A	red
Ph 1- / Ph B	B	B	pink
Ph 2+ / Ph C	C	C	blue
Ph 2- / (-)	D	D (not connected)	grey
+5VDC	E	E	white
GND	F	F	inner shield
Sin	G	G	yellow
Cos	H	H	green
Temp.	L	L	black
Shield	Housing	Housing	outer Shield

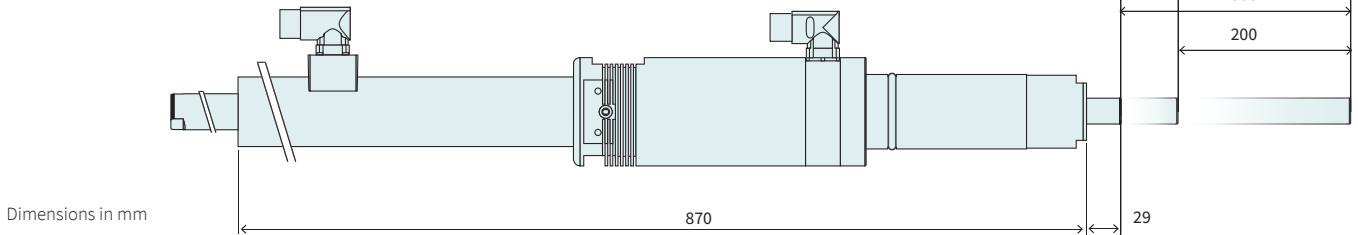
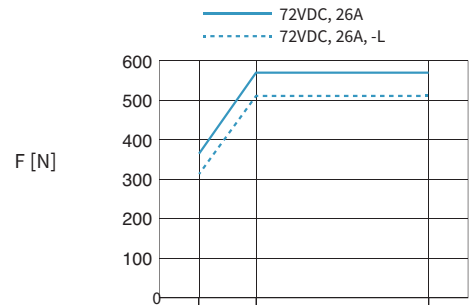


View: Motor connector, plug on

Item	Description	Item-No.
PR01-84x80-C/48x360F-C-150	Linear Rotary Motor	0150-1168
PR01-84x80-C/48x360F-C-150-L	Linear Rotary Motor with hollow Shaft	0150-1166

PR01-84x80-C/48x240F-C-300 (-L)

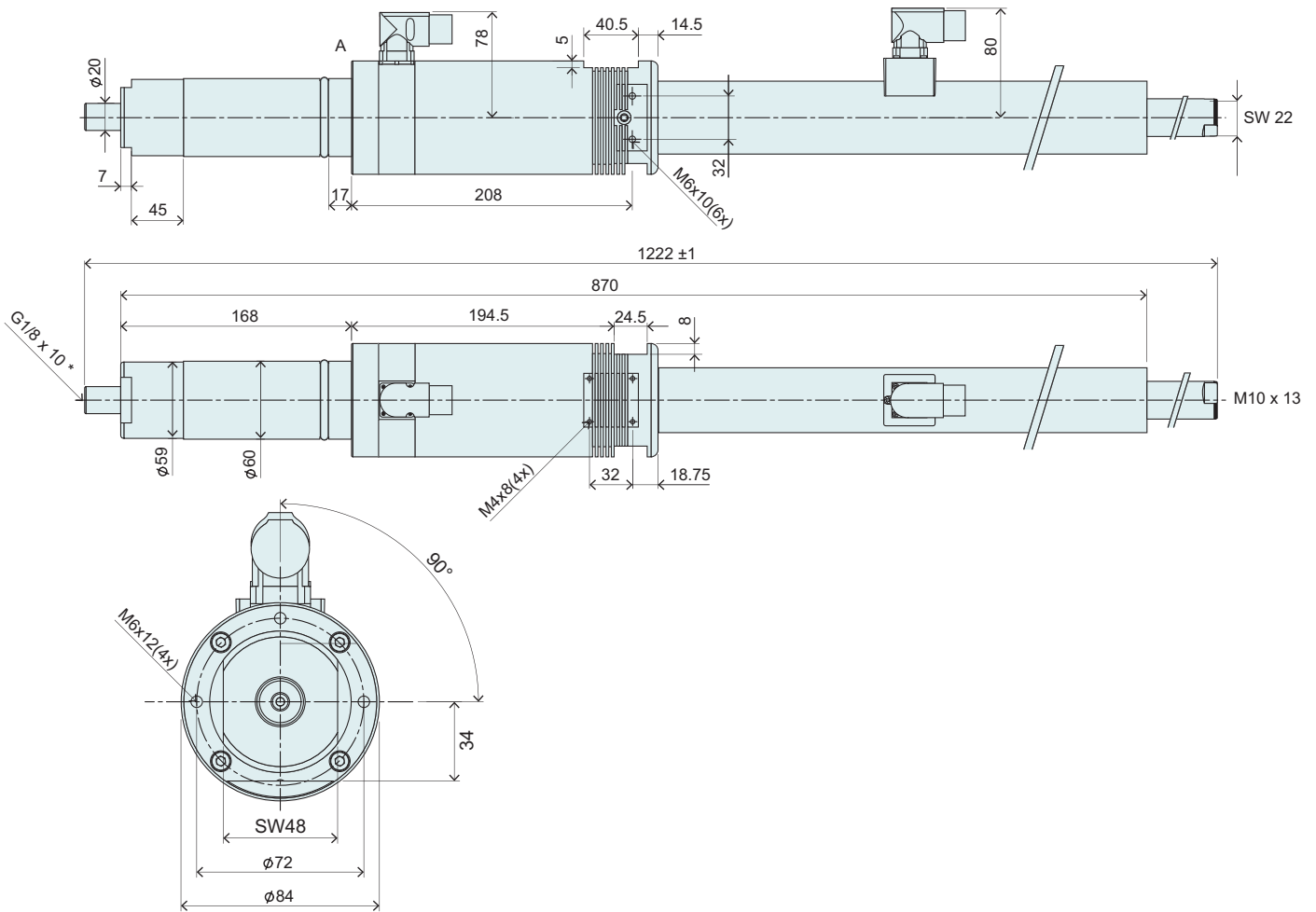
Max. Stroke: 300 mm
Peak Force: 572 N
Peak Torque: 8.9 Nm



Motor Specifications			
		PR01-84x80-C/48x240F-C-300(-L)	
Linear Motion			
Extended Stroke ES	mm (in)	300	(11.81)
Standard Stroke SS	mm (in)	200	(7.88)
Peak Forc E12x0 - UC	N (lbf)	572 (-L 514)	(128.6 (-L 115.6)) (-L: hollow Shaft version reduced forces)
Constant Force	N (lbf)	145 (-L 130)	(74.2 (-L 29.2))
Constant Force Fan cooling	N (lbf)	255 (-L 230)	(58.0 (-L 51.7))
Force Constant	N/A _{pk} (lbf/A _{pk})	22	(5.0)
Max. Current @ 72VDC	A _{pk}	26	
Max. Velocity @ 72VDC	m/s (in/s)	3	(118)
Position Repeatability	mm (in)	±0.05	(±0.0020)
Linearity	%	±0.15	
Rotary Motion			
Peak Torque (± 10%)	Nm (lbf·in)	8.9	78
Constant Torque (Halt)	Nm (lbf·in)	1.9	17
Max. Number of revolutions	rpm	1000	
Torque Constant 1	Nm/A _{pk} (lbf·in/A _{pk})	0.36	(3.19)
Torque Constant 2	Nm/A _{rms} (lbf·in/A _{rms})	0.5035	4.46
Max. Current @ 72VDC	A _{pk} / A _{rms}	25 / 17.68	
Position Repeatability	°	+/- 0.05°(*/-3°)	
Mechanical Data			
Overall length	mm (in)	1222	(48.11)
Diameter Linear Unit	mm (in)	48	(1.89)
Diameter Rotary Unit	mm (in)	84	(3.31)
Mass	g (lb)	12500	(27.56)
Linear Moving mass	g (lb)	3600	(7.94)
Rotary Torque of Inertia	kgcm ² (lbf ²)	2.4	(0.0057)
Axle Diameter	mm (in)	20h9	(0.79)
Through bore-hole		-L Option	Hole diameter 4 mm, Connection (front) 1/8" x 7, connection (back) 1/4" x 8
Protection Class		IP64	

Note: Hollow Shaft variants have 10% reduced forces

DIMENSIONS

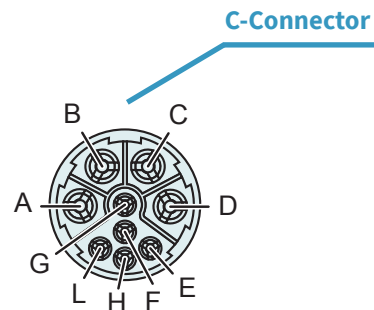


Dimensions in mm

* Thread exists only with the L-version of the motor

CONNECTORS

Motor Connector Wiring	Linear Unit: C-Connector	Rotary Unit: C-Connector	Wire Color Motor Cable
Ph 1+ / Ph A	A	A	red
Ph 1- / Ph B	B	B	pink
Ph 2+ / Ph C	C	C	blue
Ph 2- / (-)	D	D (not connected)	grey
+5VDC	E	E	white
GND	F	F	inner shield
Sin	G	G	yellow
Cos	H	H	green
Temp.	L	L	black
Shield	Housing	Housing	outer Shield

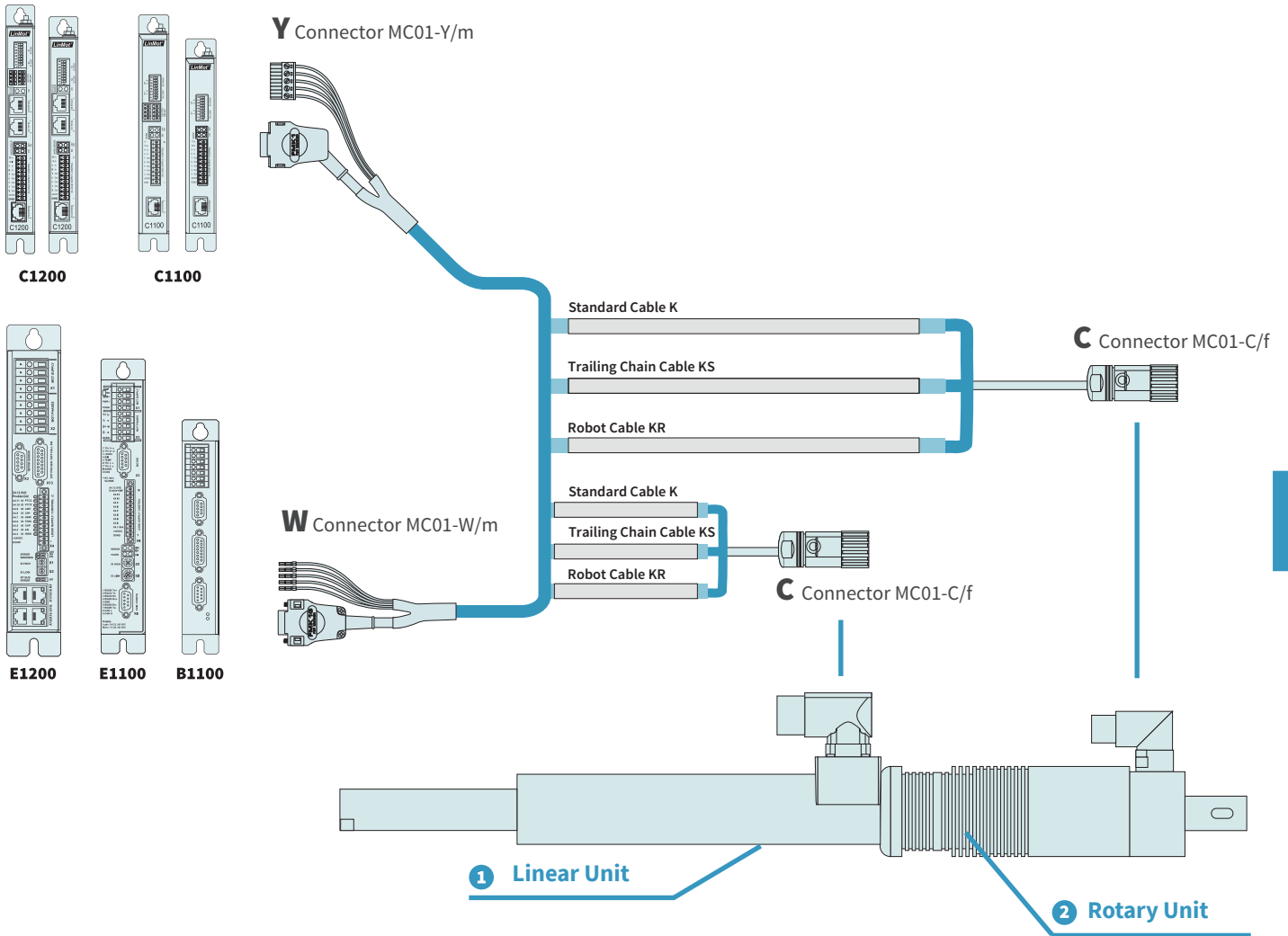


View: Motor connector, plug on

Item	Description	Item-No.
PR01-84x80-C/48x240F-C-300	Linear Rotary Motor	0150-1580
PR01-84x80-C/48x240F-C-300-L	Linear Rotary Motor with hollow Shaft	0150-2554

Accessories

MOTOR CABLE



ORDERING INFORMATION

1 2 Linear Unit / Rotary Unit

Standard Cable		
Item	Description	Item-No.
K15-W/C-2	Motor Cable W/C, 2 m	0150-1811
K15-W/C-4	Motor Cable W/C, 4 m	0150-1801
K15-W/C-6	Motor Cable W/C, 6 m	0150-1802
K15-W/C-8	Motor Cable W/C, 8 m	0150-1803
K15-W/C-	Motor Cable K15-W/C, Custom length	0150-3131

K15-Y/C-2	Motor Cable Y/C, 2 m	0150-2429
K15-Y/C-4	Motor Cable Y/C, 4 m	0150-2430
K15-Y/C-6	Motor Cable Y/C, 6 m	0150-2431
K15-Y/C-8	Motor Cable Y/C, 8 m	0150-2432
K15-Y-Fe/C-	Motor Cable K15-Y-Fe/C, Custom length	0150-3506

Robot Cable		
Item	Description	Item-No.
KR10-W/C-	Robot Cable KR10-W/C, Custom length	0150-3199
KR10-Y-Fe/C-	Robot Cable KR10-Y-Fe/C, Custom length	0150-3515

Trailing Chain Cable		
Item	Description	Item-No.
KS10-W/C-4	Trailing Chain Cable W/C, 4 m	0150-1807
KS10-W/C-6	Trailing Chain Cable W/C, 6 m	0150-1858
KS10-W/C-8	Trailing Chain Cable W/C, 8 m	0150-1808
KS10-W/C-	Trailing Chain Cable KS10-W/C, Custom length	0150-3139

KS10-Y/C-4	Trailing Chain Cable Y/C, 4 m	0150-2439
KS10-Y/C-6	Trailing Chain Cable Y/C, 6 m	0150-2440
KS10-Y/C-8	Trailing Chain Cable Y/C, 8 m	0150-2441
KS10-Y-Fe/C-	Trailing Chain Cable KS10-Y-Fe/C, Custom length	0150-3511

Connector & Cable (individual)		
Item	Description	Item-No.
MC01-C/f	Motor Connector C/f	0150-3080
MC01-W/m	Motor Connector W/m	0150-3140
MC01-Y-Fe/m	Motor Connector Y-Fe/m	0150-3289
K15-04/05	Motor Cable per m	0150-1978
KS10-04/05	Trailing Chain Cable per m	0150-1977
KR10-04/05	Robot Cable per m	0150-1830

COOLING PROFILE



Item	Description	Item-No.
PC01-48x100	Cooling profile for PS01-48 Linear Motor	0160-2145
PC01-48x117	Cooling profile for PS01-48 Linear Motor	0160-2138

FLANGE



Item	Description	Item-No.
PF01-48x120	Flange 48x120 mm	0150-1976
PF01-48x226	Flange 48x226 mm	0150-2108

FAN COOLING FOR LINEAR UNIT



Item	Description	Item-No.
HV01-37/48	Fan cooling for H01-37/48 & PF01-48	0150-5051

FAN COOLING FOR ROTARY UNIT



Item	Description	Item-No.
RS01-VA84-Kit	Fan Kit for RS01-84 Rotary Motors	0150-1600

MOUNTING FLANGE



Item	Description	Item-No.
MF01-PR01-84x80-37-1	MagSpring Mounting Flange for Linear Rotary Motors UNO	0250-2337
MF01-PR01-84x80-37-2	MagSpring Mounting Flange for Linear Rotary Motors DUO	0250-2338

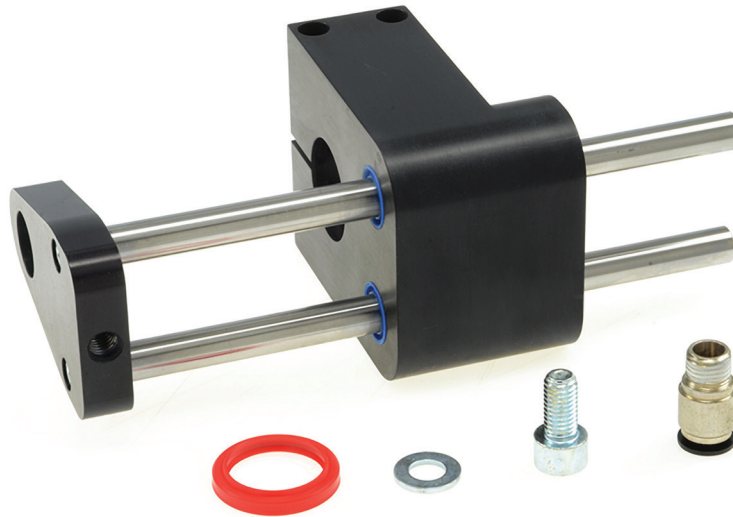
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MAGSPRING ADAPTER



Item	Description	Item-No.
MA01-PR01-84x80-37-1	MagSpring Adapter for Linear Rotary Motors UNO	0250-2341
MA01-PR01-84x80-37-2	MagSpring Adapter for Linear Rotary Motors DUO	0250-2340

CAM KIT



Item	Description	Item-No.
MF01-PK84	Motor Cam Kit for Linear Rotary Motor	0250-2324

SHAFT-HUB CLAMPING



Item	Description	Item-No.
RS01-SS20x38	Shaft-hub clamping for 20 mm shaft	0230-0100

