

eForce control loading systems

E2M control loading actuators accurately reproduce control forces in various applications from mission trainers up to full flight level D simulators. The active force feedback solutions are for fixed- and rotary wing flight simulators, both civil and military.

- smooth in operation
- reliable and robust
- high dynamics and performance
- cost – effective and competitive in pricing

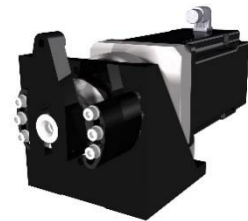
| | | | |
|---|---|----------------|------------------|
| eF-DD-F-200 High performance high torque direct-drive actuator for level D primary controls | torque - continuous | 200 Nm | 1770 lb in |
| | torque - peak | 400 Nm | 3540 lb in |
| | stroke | +/- 0.78 rad | +/- 45 deg |
| | maximum velocity | 12.6 rad/s | 720 deg/s |
| | weight⁽⁵⁾ | 47 kg | 103.6 lb |
| | dimensions (lxwxh)⁽⁵⁾ | 231x315x325 mm | 9.1x12.4x12.8 in |



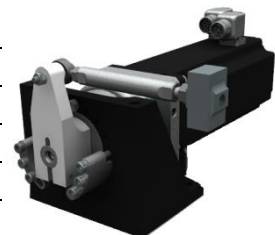
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|---|---|----------------|-------------------|
| eF-GD-F-160 High performance geared-drive actuator for level D primary controls | torque - continuous | 160 Nm | 1410 lb in |
| | torque - peak | 240 Nm | 2120 lb in |
| | stroke | +/- 0.78 rad | +/- 45 deg |
| | maximum velocity | 12,6 rad/s | 720 deg/s |
| | weight⁽⁵⁾ | 16 kg | 35.3 lb |
| | dimensions (lxwxh)⁽⁵⁾ | 290x345x392 mm | 11.4x13.6x15.4 in |
| l w/o motor | 104 mm | 4.1 in | |



| | | | |
|--|---|----------------|-----------------|
| eF-GD-220 Compact and dynamic geared-drive for primary- and secondary controls | torque - continuous | 220 Nm | 2120 lb in |
| | torque - peak | 400 Nm | 3540 lb in |
| | stroke | +/- 0.78 rad | +/- 45 deg |
| | maximum velocity | 10,5 rad/s | 600 deg/s |
| | weight⁽⁵⁾ | 20,5 kg | 45.2 lb |
| | dimensions (lxwxh)⁽⁵⁾ | 412x180x176 mm | 16.2x7.1x6.9 in |



| | | | |
|--|---|----------------|-----------------|
| eF-GD-120 Compact and dynamic geared-drive for primary- and secondary controls | torque - continuous | 120 Nm | 1060 lb in |
| | torque - peak | 180 Nm | 1590 lb in |
| | stroke | +/- 0.78 rad | +/- 45 deg |
| | maximum velocity | 17,5 rad/s | 1000 deg/s |
| | weight⁽⁵⁾ | 11,2 kg | 24,7 lb |
| | dimensions (lxwxh)⁽⁵⁾ | 376x150x130 mm | 14.8x4.2x5.9 in |



eF-DD-130
 Smooth and cost-effective, direct-drive for primary controls

| | | |
|---|----------------|-----------------|
| torque - continuous | 130 Nm | 1150 lb in |
| torque - peak | 180 Nm | 1590 lb in |
| stroke | +/-0,78 rad | +/- 45 deg |
| maximum velocity | 15 rad/s | 860 deg/s |
| weight⁽⁵⁾ | 48,2 kg | 106 lb |
| dimensions (lxwxh)⁽⁵⁾ | 409x236x212 mm | 16.1x9.3x8.3 in |



eF-DD-50
 cost-effective direct-drive actuator for secondary controls

| | | |
|---|----------------|-----------------|
| torque - continuous | 50 Nm | 440 lb in |
| torque - peak | 90 Nm | 790 lb in |
| stroke | +/-0,78 rad | +/- 45 deg |
| maximum velocity | 30 rad/s | 1700 deg/s |
| weight⁽⁵⁾ | 22 kg | 48.5 lb |
| dimensions (lxwxh)⁽⁵⁾ | 409x205x160 mm | 16.1x8.1x6.3 in |



eF-DD-20
 cost-effective direct-drive actuator for secondary controls

| | | |
|---|----------------|-----------------|
| torque - continuous | 20 Nm | 175 lb in |
| torque - peak | 30 Nm | 260 lb in |
| Stroke | +/-0,75 rad | +/-0,45 deg |
| maximum velocity | 80 rad/s | 4500 deg/s |
| weight⁽⁵⁾ | 11,5 kg | 25.4 lb |
| dimensions (lxwxh)⁽⁵⁾ | 295x205x160 mm | 10.2x8.1x6.3 in |



eF-DDM-50 i
 cost-effective direct-drive actuator with multi-turn functionality

| | | |
|---|----------------|-----------------|
| torque - continuous | 50 Nm | 440 lb in |
| torque - peak | 90 Nm | 790 lb in |
| Stroke | multiturn | multiturn |
| maximum velocity | 30 rad/s | 1700 deg/s |
| weight⁽⁵⁾ | 21,5 kg | 47,4 lb |
| dimensions (lxwxh)⁽⁵⁾ | 409x205x160 mm | 16.1x8.1x6.3 in |



eF-DDM-20
 cost-effective direct-drive actuator with multi-turn functionality

| | | |
|---|----------------|---------------|
| torque - continuous | 20 Nm | 175 lb in |
| torque - peak | 30 Nm | 260 lb in |
| stroke | multiturn | multiturn |
| maximum velocity | 80 rad/s | 4500 deg/s |
| weight⁽⁵⁾ | 12 kg | 26.5 lb |
| dimensions (lxwxh)⁽⁵⁾ | 457x145x145 mm | 18x5.7x5.7 in |



eF-DDM-20 i
dimensions (lxwxh)⁽⁵⁾ 267x145x145 mm 11x5.7x5.7 in

⁽⁵⁾ including motor, including axis, including brackets, excluding loadcell, excluding connectors.