

Brake Specification

| Motor Frame | Holding Torque | Supply Volts | Input Power | Current | Moment of Inertia | Weight |
|-------------|----------------|--------------|-------------|---------|-------------------------------------|--------|
| Size | Nm | V d.c. | Watts | A | kgm ² x 10 ⁻⁶ | kg |
| 75 | 2 | 24 | 14 | 0.58 | 3.0 | 0.4 |
| 95 | 6 | 24 | 30 | 1.25 | 29 | 0.5 |
| 115 | 12 | 24 | 30 | 1.25 | 49 | 0.9 |
| 142 | 20 | 24 | 30 | 1.25 | 128.0 | 2.25 |

- The brakes are intended for parking duty and engage on power de-energisation.
- Refer to drive centre if your application requires dynamic braking in emergency conditions.
- To provide protection to the brake control circuit it is recommended that a diode is connected across the output terminals of the solid state or relay contacts devices. Ask for detailed information.
- Motor length is identical with or without brake.

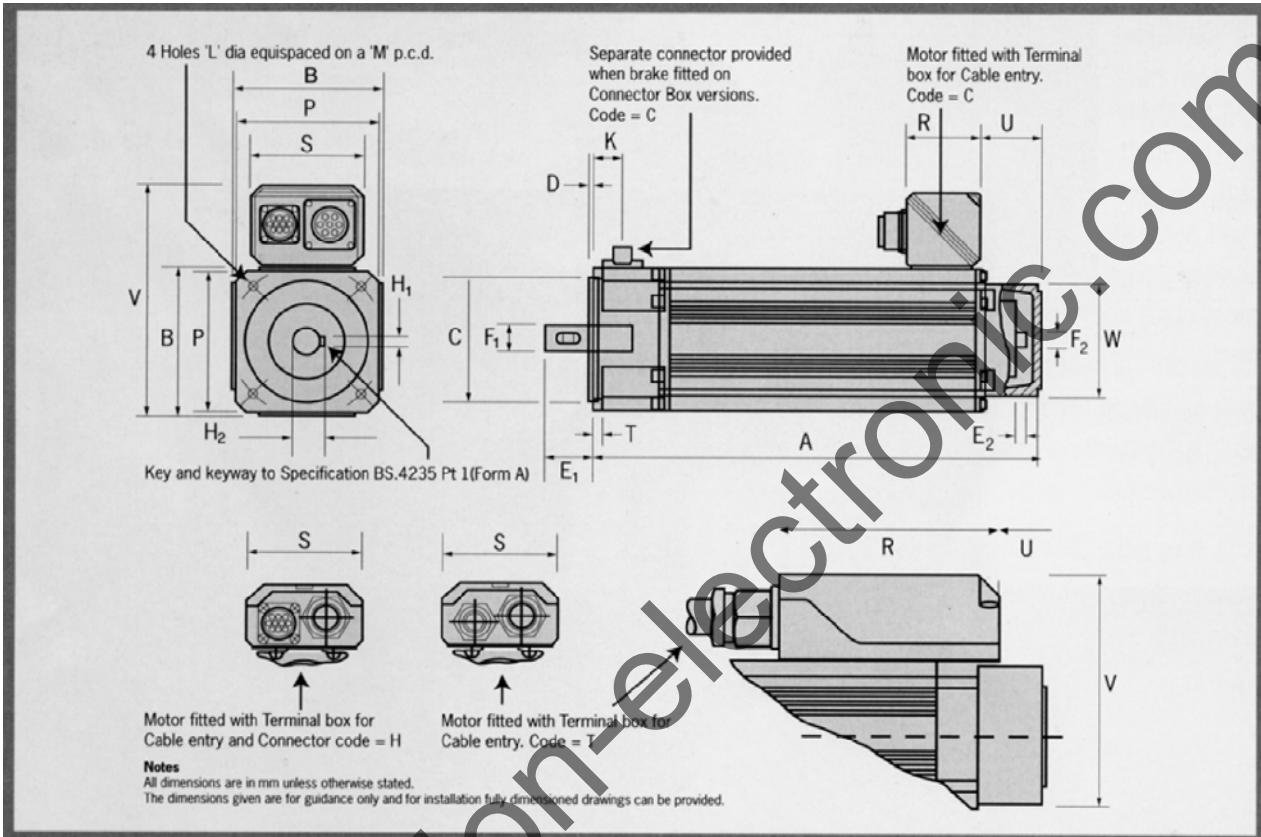
Ordering Information

Use the information below in the illustration to create an order code for a DutymAx motor. The details in the band are an example of an order reference.

ORDER REFERENCE EXAMPLE

| | | | | | | | | | |
|--|--|--|---|--|--|---|---|--|--|
| 95 | DS | B | 30 | 0 | C | A | A | A | A |
| Frame Size: 75 95 115 142 | Stator Length: A, B, C, D, E | Brake: 0 -Not fitted (Std) 1-Brake fitted 24V | Output Shaft Key: A -With key (Std) B -Without key | Flange Mounting: A -IEC (Std) B -DIN 42955 C- DIN 42955"R" (Obsolete) | Motor Type: DS -380V 3ph DigitAx MS -220V 3ph MaxAx | Rated speed: 20 -2000rpm 30 -3000rpm (Std) 40 -4000rpm 60 -6000rpm | Connection type: C -Connector (Std) H -Hybrid T -Terminal | Feedback Device: A -Resolver 55RSS116P* F -Resolver 55RSS117 (Obsolete) | Inertia: A -Standard (Std) B -Inertia wheel in brake posn. C -High Inertia steel balancing plates. |

*55RSS116P replaced the 55RSS117

Dimensions


| Frame Size | 75DS | | | | | 95DS | | | | | 115DS | | | | | 142DS | | | | | |
|-----------------------------------|------|---------------|-----|-----|---|------|---------------|-----|-----|-----|-------|---------------|-----|-----|-----|-------|-----------------|-----|-----|-----|--|
| Dimension/Length suffix | A | B | C | D | E | A | B | C | D | E | A | B | C | D | E | A | B | C | D | E | |
| A Length Overall | 225 | 254 | 283 | 312 | | 235 | 264 | 293 | 322 | 351 | 245 | 274 | 303 | 332 | 361 | 275 | 303 | 332 | 361 | 390 | |
| B Body Square | | 75.5 | | | | | 95.5 | | | | | 115.6 | | | | | 143.0 | | | | |
| C Register Diameter | | 59.993/60.012 | | | | | 79.993/80.012 | | | | | 94.991/95.013 | | | | | 129.989/130.014 | | | | |
| D Register Length | | 2.5 | | | | | 3 | | | | | 3 | | | | | 3 | | | | |
| E1 Shaft Length (Front) | 23 | 30 | | | | 30 | 40 | | | | 40 | 50 | | | | | 50 | | | | |
| E2 Shaft Length (Rear) | | 10.40/11.60 | | | | | 10.40/11.60 | | | | | 10.40/11.60 | | | | | 10.40/11.60 | | | | |
| F1 Shaft Diameter (Front) | 11 | 14 | | | | 14 | 19 | | | | 19 | 24 | | | | | 24 | | | | |
| F2 Shaft Diameter (Rear) | | 12 | | | | | 12 | | | | 12 | | | | | | 12 | | | | |
| H1 Shaft key Width | 4 | 5 | | | | 5 | 6 | | | | 6 | 8 | | | | | 8 | | | | |
| H2 Shaft Key Height | 12.5 | 16 | | | | 16 | 21.5 | | | | 21.5 | 27 | | | | | 27 | | | | |
| K Brake Connector Location | | 16 | | | | | 16.3 | | | | | 14 | | | | | 21.5 | | | | |
| L Fixing Hole Diameter | | 5.8 | | | | | 7 | | | | | 9 | | | | | 11.5 | | | | |
| N Fixing Hole p.c.d. | | 75 | | | | | 100 | | | | | 115 | | | | | 165 | | | | |
| P Flange Square | | 70.0/70.5 | | | | | 92.0/92.5 | | | | | 105.0/105.5 | | | | | 142.0/143.0 | | | | |
| T Flange Thickness | | 5.8/6.2 | | | | | 5.8/6.2 | | | | | 8.8/9.2 | | | | | 10.8/11.0 | | | | |
| W Resolver Cover Diameter | | 71 | | | | | 71 | | | | | 71 | | | | | 71 | | | | |
| Connector Version (C) | | | | | | | | | | | | | | | | | | | | | |
| R Connector Box Length | | 48.4 | | | | | 48.4 | | | | | 48.4 | | | | | 52.4 | | | | |
| S Connector Box Width | | 74 | | | | | 74 | | | | | 74 | | | | | 92 | | | | |
| U Connector Box Location | | 53.4 | | | | | 38.4 | | | | | 42.4 | | | | | 42.4 | | | | |
| V Overall Height | | 125 | | | | | 145 | | | | | 165 | | | | | 196 | | | | |
| Terminal/Hybrid Box (T/H) | | | | | | | | | | | | | | | | | | | | | |
| R Connector Box Length | | 110 | | | | | 110 | | | | | 110 | | | | | 110 | | | | |
| S Connector Box Width | | 76 | | | | | 76 | | | | | 76 | | | | | 76 | | | | |
| U Connector Box Location | | 23.8 | | | | | 8.8 | | | | | 12.9 | | | | | 12.8 | | | | |
| V Overall Height | | 119 | | | | | 139 | | | | | 159 | | | | | 190 | | | | |

Performance Data

DutymAx Performance Data - DS Version : 380V 3ph. 50/60 Hz

resolver feedback

* Value at ambient Temperature of 25 °C with ΔT of 125 °C

Data is subject to a tolerance of ± 10%

| Motor Type Reference All versions (rpm) | 75DS | | | | 95DS | | | | | 115DS | | | | | 142DS | | | | |
|--|---------------|-------|------|--------------------------------|-------|------|------|------|------------------------------------|-------|------|------|------|------|-------|------|------|------|------|
| | A | B | C | D | A | B | C | D | E | A | B | C | D | E | A | B | C | D | E |
| Cont. T _{stall} * (Nm) | 1.3 | 2.3 | 3.1 | 4.0 | 2.5 | 4.3 | 6.0 | 7.6 | 9.2 | 4.5 | 7.4 | 10.5 | 13.3 | 15.7 | 7.0 | 12.0 | 17.0 | 22.0 | 26.0 |
| T _{peak} (Nm) | 3.9 | 6.9 | 9.3 | 12.0 | 7.5 | 12.9 | 18.0 | 22.8 | 27.6 | 13.5 | 22.2 | 31.5 | 39.9 | 47.1 | 21.0 | 36.0 | 51.0 | 66.0 | 78.0 |
| High Inertia (Kgcm ²) | 1.1 | 1.6 | 2.1 | 2.5 | 3.4 | 4.5 | 5.6 | 6.8 | 7.9 | 9.3 | 12.2 | 15.0 | 17.7 | 20.5 | 28.2 | 34.3 | 40.4 | 46.5 | 52.7 |
| Standard In (Kgcm ²) | 0.6 | 1.1 | 1.6 | 2.0 | 1.5 | 2.6 | 3.7 | 4.9 | 6.0 | 4.2 | 7.1 | 9.9 | 12.6 | 15.4 | 8.5 | 14.6 | 20.7 | 26.8 | 33.0 |
| Weight (Kg) | 3.0 | 3.7 | 4.4 | 5.1 | 5.0 | 6.1 | 7.2 | 8.3 | 9.5 | 6.5 | 8.2 | 9.9 | 11.6 | 13.2 | 10.9 | 13.2 | 15.5 | 17.8 | 20.5 |
| Motor Time (sec) | 1315 | 1431 | 1500 | 1587 | 1422 | 1618 | 1800 | 1997 | 2178 | 1436 | 1614 | 1792 | 1980 | 2158 | 2093 | 2316 | 2548 | 2700 | 3003 |
| Wndg Time (sec) | refer UM data | | | | | | | | | | | | | | | | | | |
| Rated Speed: 2000 (rpm) | | | | Kt (Nm/A _{rms}): 2.4 | | | | | Ke (V _{rms} /krpm): 147.0 | | | | | | | | | | |
| T _{rated} * (Nm) | 1.2 | 2.1 | 2.9 | 3.7 | 2.3 | 4.0 | 5.5 | 7.1 | 8.5 | 4.1 | 6.7 | 9.5 | 12.0 | 14.2 | 6.5 | 11.4 | 16.2 | 20.4 | 23.7 |
| Cont. I _{stall} * (A _{rms}) | 0.6 | 1.0 | 1.3 | 1.7 | 1.1 | 1.8 | 2.5 | 3.2 | 3.9 | 1.9 | 3.1 | 4.4 | 5.6 | 6.6 | 3.0 | 5.0 | 7.1 | 9.2 | 10.9 |
| P _{rated} * (kW) | 0.25 | 0.44 | 0.61 | 0.77 | 0.48 | 0.84 | 1.15 | 1.49 | 1.78 | 0.86 | 1.40 | 1.99 | 2.51 | 2.97 | 1.36 | 2.39 | 3.39 | 4.27 | 4.96 |
| R (ph-ph) (Ohms) | 172.6 | 56.1 | 28.8 | 19.9 | 52.0 | 16.5 | 8.8 | 5.8 | 4.3 | 27.8 | 8.6 | 4.6 | 3.0 | 2.2 | 13.4 | 4.0 | 2.1 | 1.4 | 1.0 |
| L (ph-ph) (mH) | 243.1 | 106.4 | 67.9 | 49.3 | 138.9 | 64.9 | 41.2 | 29.6 | 23.2 | 94.6 | 40.5 | 25.7 | 18.6 | 14.7 | 58.0 | 29.8 | 18.7 | 13.6 | 10.7 |
| Rated Speed 3000 (rpm) | | | | Kt (Nm/A _{rms}): 1.6 | | | | | Ke (V _{rms} /krpm): 98.0 | | | | | | | | | | |
| T _{rated} * (Nm) | 1.2 | 2.1 | 2.8 | 3.6 | 2.3 | 3.9 | 5.4 | 6.9 | 8.3 | 3.7 | 6.1 | 8.6 | 10.8 | 12.7 | 6.0 | 10.0 | 13.5 | 17.5 | 20.0 |
| Cont. I _{stall} * (A _{rms}) | 0.9 | 1.5 | 2.0 | 2.5 | 1.6 | 2.7 | 3.8 | 4.8 | 5.8 | 2.9 | 4.7 | 6.6 | 8.4 | 9.9 | 4.4 | 7.5 | 10.7 | 13.8 | 16.3 |
| P _{rated} * (kW) | 0.38 | 0.66 | 0.88 | 1.13 | 0.72 | 1.23 | 1.70 | 2.17 | 2.61 | 1.16 | 1.92 | 2.70 | 3.39 | 3.99 | 1.88 | 3.14 | 4.24 | 5.50 | 6.28 |
| R (ph-ph) (Ohms) | 73.4 | 23.4 | 13.9 | 8.7 | 24.9 | 7.5 | 4.1 | 2.8 | 1.9 | 12.6 | 3.9 | 2.0 | 1.3 | 1.1 | 6.0 | 1.8 | 0.9 | 0.6 | 0.4 |
| L (ph-ph) (mH) | 109.0 | 47.7 | 31.5 | 22.8 | 63.5 | 28.5 | 18.3 | 13.2 | 10.3 | 43.1 | 18.6 | 11.4 | 8.6 | 7.4 | 31.0 | 13.3 | 8.3 | 6.1 | 4.8 |
| Rated Speed 4000 (rpm) | | | | Kt (Nm/A _{rms}): 1.2 | | | | | Ke (V _{rms} /krpm): 73.5 | | | | | | | | | | |
| T _{rated} * (Nm) | 1.1 | 2.0 | 2.4 | 3.0 | 2.0 | 3.0 | 4.0 | 4.9 | 5.8 | 3.1 | 4.9 | 6.7 | 7.8 | 8.6 | 4.0 | 7.8 | 9.9 | 11.9 | 13.5 |
| Cont. I _{stall} * (A _{rms}) | 1.1 | 2.0 | 2.6 | 3.4 | 2.1 | 3.6 | 5.0 | 6.4 | 7.7 | 3.8 | 6.2 | 8.8 | 11.1 | 13.1 | 5.9 | 10.0 | 14.2 | 18.4 | 21.7 |
| P _{rated} * (kW) | 0.46 | 0.84 | 1.01 | 1.26 | 0.84 | 1.26 | 1.68 | 2.05 | 2.43 | 1.30 | 2.05 | 2.81 | 3.27 | 3.60 | 1.68 | 3.27 | 4.15 | 4.98 | 5.65 |
| R (ph-ph) (Ohms) | 43.7 | 14.2 | 7.7 | 4.6 | 13.8 | 4.4 | 2.4 | 1.7 | 1.2 | 6.9 | 2.1 | 1.2 | 0.7 | 0.6 | 3.4 | 1.0 | 0.5 | 0.4 | 0.2 |
| L (ph-ph) (mH) | 61.7 | 27.2 | 18.1 | 12.7 | 35.9 | 16.1 | 10.1 | 7.6 | 5.8 | 23.5 | 10.2 | 6.6 | 4.7 | 3.9 | 17.6 | 7.5 | 4.7 | 3.6 | 2.7 |
| Rated Speed 6000 (rpm) | | | | Kt (Nm/A _{rms}): 0.8 | | | | | Ke (V _{rms} /krpm): 49.0 | | | | | | | | | | |
| T _{rated} * (Nm) | 1.0 | 1.5 | 1.8 | 2.0 | | | | | | | | | | | | | | | |
| Cont. I _{stall} * (A _{rms}) | 1.7 | 2.9 | 3.9 | 5.0 | | | | | | | | | | | | | | | |
| P _{rated} * (kW) | 0.63 | 0.94 | 1.13 | 1.26 | | | | | | | | | | | | | | | |
| R (ph-ph) (Ohms) | | | | | | | | | | | | | | | | | | | |
| L (ph-ph) (mH) | | | | | | | | | | | | | | | | | | | |

The information contained in this specification is for guidance only and does not form part of any contract.

CT Dynamics Limited have an ongoing process of development and reserve the right to change the specification without notice.

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