



Designed for use on SCR and PWM type direct current adjustable speed drives and on across-the-line DC controls. Ideal applications include conveyors, turntables, packaging or anywhere adjustable speed and constant torque is required.

## STANDARD FEATURES



- SCR Rated
- 20:1 Constant Torque speed range
- 1.0 Service Factor
- Rolled Steel Frame Construction
- Bolt-on Removable Base
- Double Shielded Ball Bearings
- 1045 Steel Shaft
- Corrosion Resistant Hardware
- Continuous (S1) Duty
- Ambient Temperatures up to 40°C
- Installation up to 3300 ft. (1000 MASL)
- IP 54 (TEFC) & IP 55 (TENV) Rated
- Class F Insulation
- Class B Temperature Rise
- 12 Month Warranty

| HP  | Model Number     | Sync. Speed | Frame | Voltage (DC) | Encl. | Full Load Amps (A) | Shipping Weight | "C" Dim |
|-----|------------------|-------------|-------|--------------|-------|--------------------|-----------------|---------|
| 1/8 | DC18-12-63-NV    | 1800        | 63B14 | 12 V         | TENV  | 10.7               | 6               | 167mm   |
|     | DC18-90-63-NV    | 1800        | 63B14 | 90 V         | TENV  | 1.4                | 6               | 167mm   |
| 1/4 | DC14-12-63-NV    | 1800        | 63B14 | 12 V         | TENV  | 21.5               | 8               | 216mm   |
|     | DC14-90-63-NV    | 1800        | 63B14 | 90 V         | TENV  | 2.8                | 8               | 216mm   |
|     | DC14-90-56-NV    | 1800        | 56C   | 90 V         | TENV  | 2.9                | 21              | 11.2"   |
|     | DC14-90-56-FC    | 1800        | 56C   | 90 V         | TEFC  | 2.9                | 21              | 11.6"   |
| 1/3 | DC13-90-56-NV    | 1800        | 56C   | 90 V         | TENV  | 3.6                | 23              | 11.2"   |
| 1/2 | DC12-90-56-NV    | 1800        | 56C   | 90 V         | TENV  | 5.2                | 25              | 12.0"   |
|     | DC12-12-56-FC    | 1800        | 56C   | 12 V         | TEFC  | 39.0               | 25              | 12.4"   |
|     | DC12-90-56-FC    | 1800        | 56C   | 90 V         | TEFC  | 5.2                | 25              | 12.4"   |
|     | DC12-180-56-FC   | 1800        | 56C   | 180 V        | TEFC  | 2.6                | 25              | 12.4"   |
| 3/4 | DC34-90-56-FC    | 1800        | 56C   | 90 V         | TEFC  | 7.8                | 30              | 13.9"   |
|     | DC34-180-56-FC   | 1800        | 56C   | 180 V        | TEFC  | 3.9                | 30              | 13.9"   |
| 1   | DC1-90-56-FC     | 1800        | 56C   | 90 V         | TEFC  | 10.4               | 33              | 14.8"   |
|     | DC1-180-56-FC    | 1800        | 56C   | 180 V        | TEFC  | 5.2                | 33              | 14.8"   |
| 1.5 | DC112-180-145-FC | 1800        | 145TC | 180 V        | TEFC  | 7.2                | 45              | 16.0    |
| 2   | DC2-180-145-FC   | 1800        | 145TC | 180 V        | TEFC  | 10.4               | 55              | 16.8    |
| 3   | DC3-180-145-FC   | 1800        | 145TC | 180 V        | TEFC  | 17                 | 70              | 17.7    |

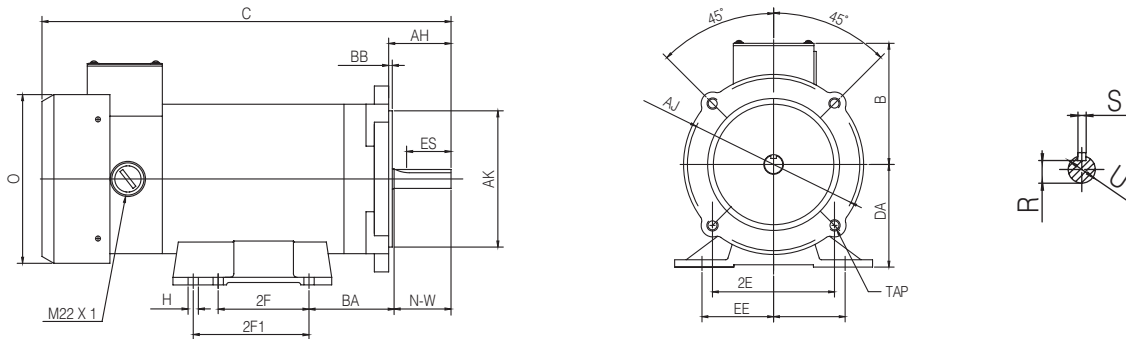
\* FC = FAN COOLED    NV = NON VENTILATED

# PM DC MOTOR REPLACEMENT PARTS

| Part         | Model Number  | Description   | List Price |
|--------------|---------------|---|------------|
| Fan          | DC4 FAN       | External Cooling Fan for DC4 Series Motors              | \$23       |
|              | DC8 FAN       | External Cooling Fan for DC80/81/82 Series Motors       | \$25       |
|              | DC8-CF        | External Cooling Fan for 140T Frame Series Motors       | \$25       |
| Fan Cover    | DC4 FAN COVER | External Cooling Fan Cover for DC4 Series Motors        | \$36       |
|              | DC8 FAN COVER | External Cooling Fan Cover for DC80/81/82 Series Motors | \$40       |
| Carbon Brush | DCRBIEC-16/18 | MLD Carbon Brush 10mm x 5mm (DC16/DC18)                 | \$29       |
|              | DCRBIEC-14    | MLD Carbon Brush 10mm x 8.5mm (DC14)                    | \$29       |
|              | DCRBN-56      | MLD Carbon Brush 16mm x 6mm 56C                         | \$29       |
|              | DCRBN-140     | MLD Carbon Brush 18mm x 10mm 140TC                      | \$45       |
| Brush Caps   | DCRBCIEC-14   | MLD DC 63B14 Brush Caps                                 | \$10       |
|              | DCRBCN-56     | MLD DC 56C Brush Caps                                   | \$10       |
|              | DCRBCN-140    | MLD DC 140TC Brush Caps                                 | \$10       |

## DIMENSIONAL DRAWINGS

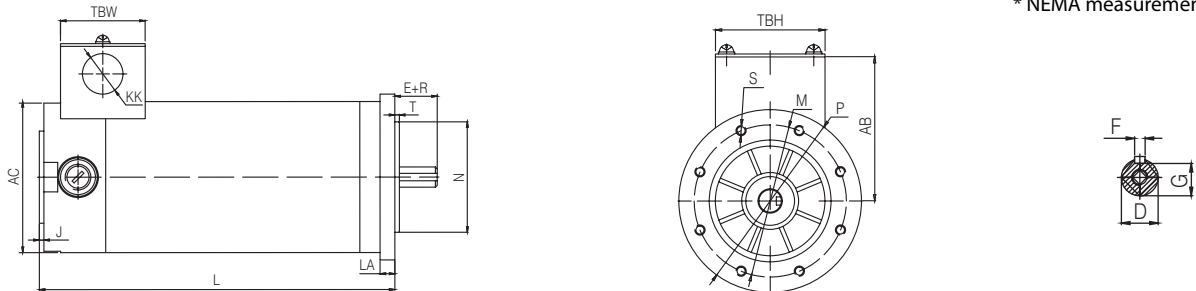
NEMA



| NEMA Frame (HP) | Encl. | Foot Mounting |     |     |      |      | Shaft |       |       |       |      | General |       |     | NEMA C-Flange |     |       |      |       |         |
|-----------------|-------|---------------|-----|-----|------|------|-------|-------|-------|-------|------|---------|-------|-----|---------------|-----|-------|------|-------|---------|
|                 |       | 2E            | 2F  | 2F1 | H    | BA   | N-W   | U     | S     | R     | ES   | AH      | C     | D   | O             | AB  | AJ    | AK   | BB    | TAP     |
| 56C (1/4)       | TEFC  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 11.63 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1/4)       | TENV  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 11.18 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1/3)       | TEFC  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 11.63 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1/3)       | TENV  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 11.18 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1/2)       | TEFC  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 12.44 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1/2)       | TENV  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 12.01 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (3/4)       | TEFC  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 13.94 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 56C (1)         | TEFC  | 4.88          | 3.0 | --  | 0.34 | 2.75 | 1.875 | 0.625 | 0.188 | 0.517 | 1.41 | 2.063   | 14.75 | 3.5 | 5.625         | 4.0 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 145TC (1.5)     | TEFC  | 5.5           | 4.0 | 5.0 | 0.32 | 2.75 | 2.0   | 0.875 | 0.188 | 0.771 | 1.41 | 2.120   | 16.00 | 3.5 | 7.0           | 4.5 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 145TC (2)       | TEFC  | 5.5           | 4.0 | 5.0 | 0.32 | 2.75 | 2.0   | 0.875 | 0.188 | 0.771 | 1.41 | 2.120   | 16.75 | 3.5 | 7.0           | 4.5 | 5.875 | 4.50 | 0.125 | 3*75-16 |
| 145TC (3)       | TEFC  | 5.5           | 4.0 | 5.0 | 0.32 | 2.75 | 2.0   | 0.875 | 0.188 | 0.771 | 1.41 | 2.120   | 17.72 | 3.5 | 7.0           | 4.5 | 5.875 | 4.50 | 0.125 | 3*75-16 |

\* NEMA measurements in inches

METRIC



| IEC Frame (HP) | Encl. | Shaft |   |     |     | General |    |     |     |     |     |     | IEC B14 C-Flange |     |     |     |    |      |
|----------------|-------|-------|---|-----|-----|---------|----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|----|------|
|                |       | D     | F | G   | E+R | AC      | AD | L   | J   | TBW | TBH | KK  | M                | N   | P   | T   | LA | S    |
| 63 B14 (1/8)   | TENV  | Ø11   | 4 | 8.5 | 23  | Ø82     | 71 | 144 | 2.5 | 65  | 54  | Ø22 | Ø75              | Ø60 | Ø90 | 2.5 | 8  | 8-M5 |
| 63 B14 (1/4)   | TENV  | Ø11   | 4 | 8.5 | 23  | Ø82     | 71 | 193 | 2.5 | 65  | 54  | Ø22 | Ø75              | Ø60 | Ø90 | 2.5 | 8  | 8-M5 |

\* METRIC measurements in millimeters