

CATALOG No: **BC2N1.5-5D**

ISSUED: 28-Apr-22

**GENERAL INFORMATION**

| HP  | KW   | Pole | RPM  | Frame | Voltage | Hz | Phase | IP Rating |
|-----|------|------|------|-------|---------|----|-------|-----------|
| 1.5 | 1.10 | 2    | 3600 | 143TD | 575 V   | 60 | 3     | IP55      |

| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.   | Rated Altitude |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| TEFC      | F          | 1.25           | Continuous  | B           | -15 to 40 C* | <3300 ft       |

**TYPICAL PERFORMANCE**

| Efficiency (%) |          |          | Power Factor (%) |          |          |
|----------------|----------|----------|------------------|----------|----------|
| Full Load      | 3/4 Load | 1/2 Load | Full Load        | 3/4 Load | 1/2 Load |
| 84.0           | 84.1     | 83.5     | 0.86             | 0.82     | 0.75     |

| LRT% | BDT % | Full Load Amps | Locked Rotor Amps | Full Load RPM |
|------|-------|----------------|-------------------|---------------|
|      |       | 575 V          | 575 V             |               |
| 370  | 400   | 1.50           | 12.00             | 3495          |

| NEMA KVA Code | Bearing Size |               | Oil Seal    |               | Sound Level |
|---------------|--------------|---------------|-------------|---------------|-------------|
|               | Drive End    | Non-Drive End | Drive End   | Non-Drive End | dB(A)       |
| J             | 62052Z       | 62032Z        | 25 x 35 x 7 | 17 x 28 x 6   | 72          |

\*Weights shown are estimated and based on standard foot mounted motor designs

**VFD DUTY INFORMATION**

|   | Variable Torque | Constant Torque | Rating   |
|---|-----------------|-----------------|--|
| - | 3 - 60 Hz       | 4 - 60 Hz       | CSA Approved Class I; Div 2; Groups A, B, C, & D, T3 |
| - | -               | -               |  |

**Click Link Below For Drawing**

<http://brookcrompton.com/Drawings/W-NEMA/NEMA%20Cast%20Iron%20B35/WP-DF143.5TD.pdf>

**Click Link Below For Connection Diagram**

<http://www.brookcrompton.com/Connections/Connection%20Diagram%203%20Lead%20575%20NEMA.pdf>

Notes:

**50HZ TECHNICAL DATA SHEET**

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|-----|------|------|-----|-------|---------|----|-------|-----------|
| 1.5 | 1.10 | 2    | -   | 143TD | -       | 50 | 3     | IP55      |

| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.   | Rated Altitude |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| TEFC      | F          | -              | S1          | B           | -15 to 40 C° | <3300 ft       |

**TYPICAL PERFORMANCE**

| Efficiency (%) |          |          | Power Factor (%) |          |          |
|----------------|----------|----------|------------------|----------|----------|
| Full Load      | 3/4 Load | 1/2 Load | Full Load        | 3/4 Load | 1/2 Load |
| 82.5           | 83.0     | 83.0     | 0.90             | 0.87     | 0.79     |

| LRT % | BDT % | Full Load Amps | Locked Rotor Amps | Full Load RPM |
|-------|-------|----------------|-------------------|---------------|
|       |       | -              | -                 |               |
| 370   | 400   | -              | -                 | -             |

| NEMA KVA Code | Bearing Size |               | Oil Seal    |               | Sound Level |
|---------------|--------------|---------------|-------------|---------------|-------------|
|               | Drive End    | Non-Drive End | Drive End   | Non-Drive End | dB(A)       |
| J             | 62052Z       | 62032Z        | 25 x 35 x 7 | 17 x 28 x 6   | 72          |

\*Weights shown are estimated and based on standard foot mounted motor designs

**VFD DUTY INFORMATION**

|   | Variable Torque | Constant Torque | Rating   |
|---|-----------------|-----------------|--|
| - | 3 - 60 Hz       | 4 - 60 Hz       | CSA Approved Class I; Div 2; Groups A, B, C, & D, T3 |
| - | -               | -               |  |

**Click Link Below For Drawing**

<http://brookcromptonna.com/Drawings/W-NEMA/NEMA%20Cast%20Iron%20B35/WP-DF143.5TD.pdf>

**Click Link Below For Connection Diagram**

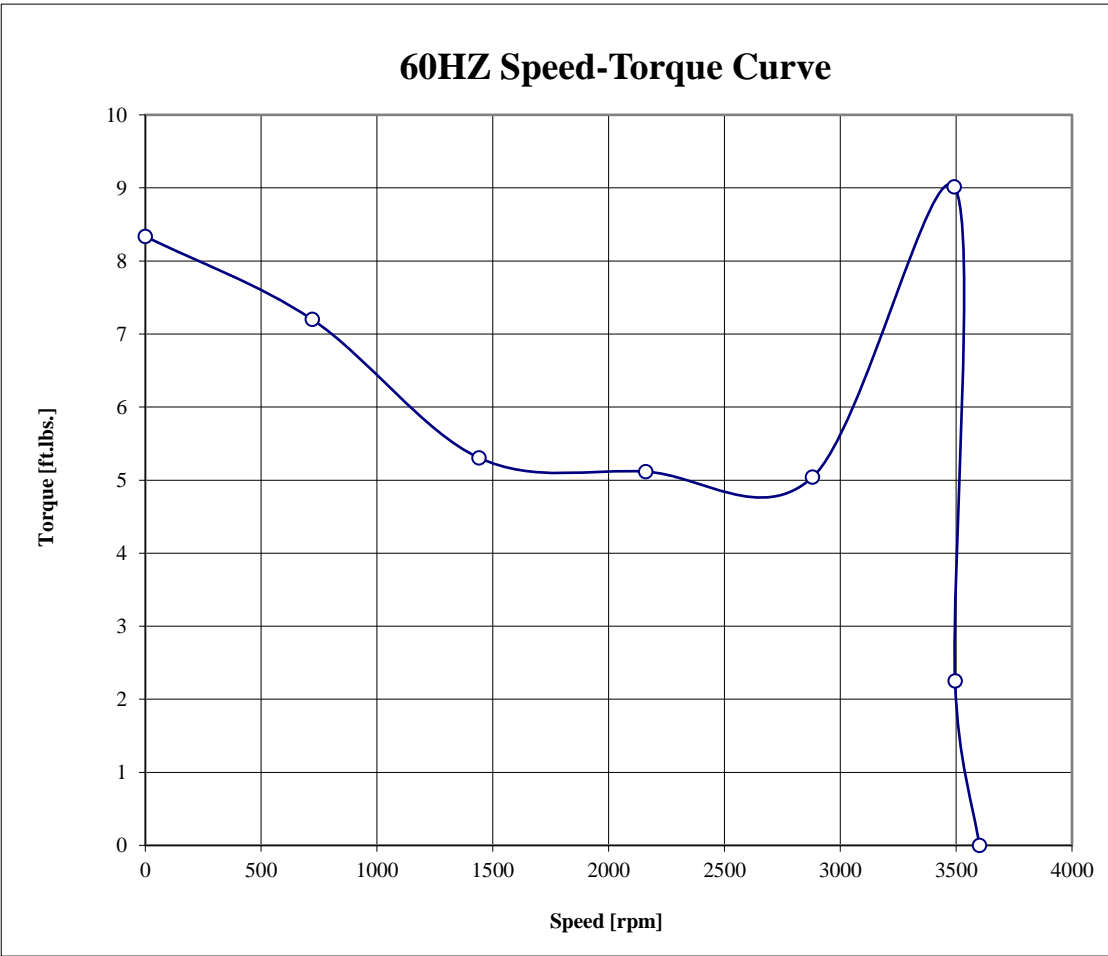
<http://www.brookcromptonna.com/Connections/Connection%20Diagram%203%20Lead%20575%20NEMA.pdf>

Notes:

**Motor: BC2N1.5-5D**

|  |                  |       |             |       |          |
|--|------------------|-------|-------------|-------|----------|
|  | <b>Frame:</b>    | 143TD | 1.5 HP      | 575 V |          |
|  | <b>Pole no.:</b> | 2     | 2.3 ft.lbs. | 60 Hz | 3495 rpm |

|                               |     |     |      |      |      |      |       |      |
|-------------------------------|-----|-----|------|------|------|------|-------|------|
| <b>Speed</b>                  | 0   | 720 | 1440 | 2160 | 2880 | 3492 | 3495  | 3600 |
| <b>Speed ratios</b>           | 0   | 0.2 | 0.4  | 0.6  | 0.8  | 0.97 | 0.971 | 1    |
| <b>Mot. torque ratios</b>     | 3.7 | 3.2 | 2.4  | 2.3  | 2.2  | 4    | 1     | 0    |
| <b>Motor torque / ft.lbs.</b> | 8   | 7   | 5    | 5    | 5    | 9    | 2     | 0    |



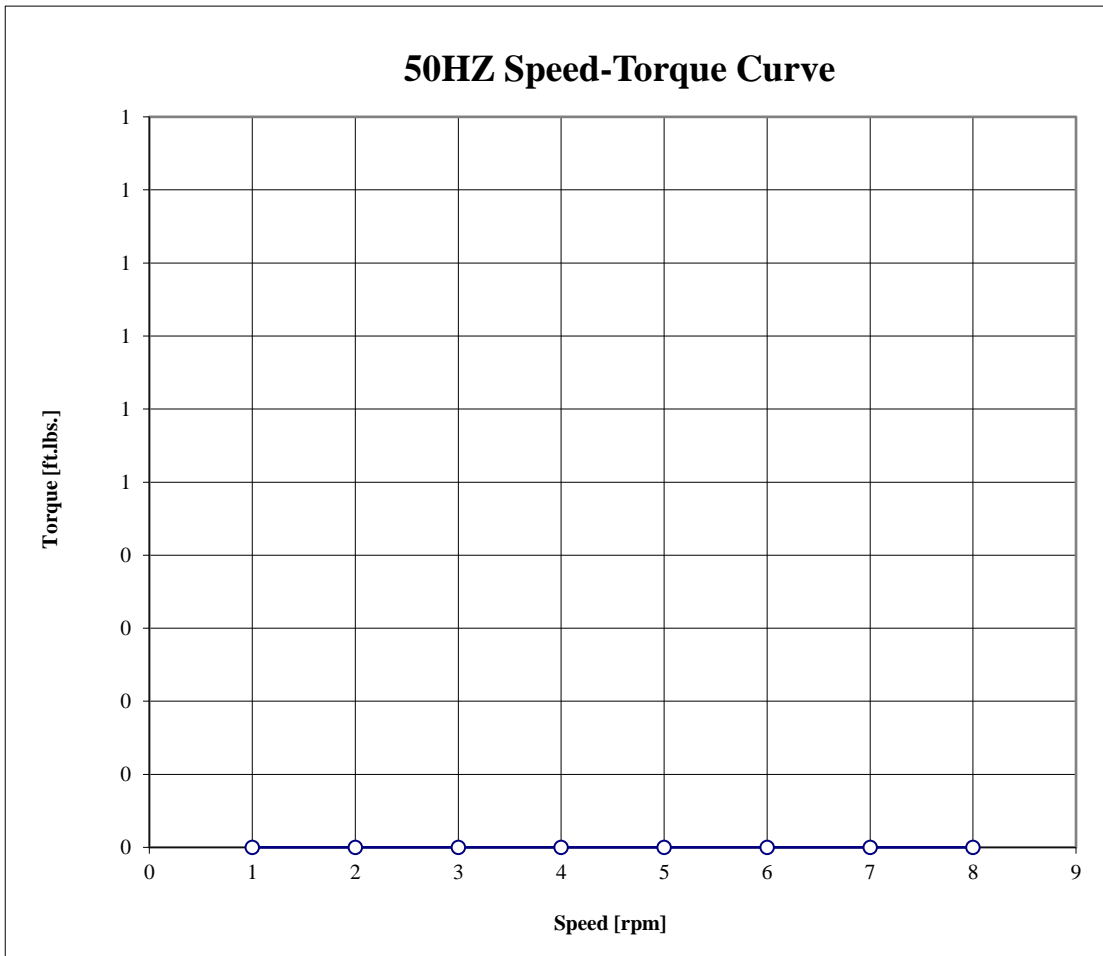
\*Curve base on calculated values



**50HZ Speed-Torque Curve not available for this motor**

|  |                  |       |           |                          |       |
|--|------------------|-------|-----------|--------------------------|-------|
|  |                  |       |           | <b>Motor: BC2N1.5-5D</b> |       |
|  | <b>Frame:</b>    | 143TD | 1.5 HP    | 400 V                    |       |
|  | <b>Pole no.:</b> | 2     | - ft.lbs. | 50 Hz                    | - rpm |

|                               |     |     |      |      |      |      |   |      |
|-------------------------------|-----|-----|------|------|------|------|---|------|
| <b>Speed</b>                  | 0   | 600 | 1200 | 1800 | 2400 | 2910 | - | 3000 |
| <b>Speed ratios</b>           | 0   | 0.2 | 0.4  | 0.6  | 0.8  | 0.97 | - | 1    |
| <b>Mot. torque ratios</b>     | 3.7 | 3.2 | 2.4  | 2.3  | 2.2  | 4    | 1 | 0    |
| <b>Motor torque / ft.lbs.</b> | -   | -   | -    | -    | -    | -    | - | -    |



\*Curve base on calculated values