

CATALOG No: **BC4N020-4D**

ISSUED: 28-Apr-22

**GENERAL INFORMATION**

| HP | KW    | Pole | RPM  | Frame | Voltage   | Hz | Phase | IP Rating |
|----|-------|------|------|-------|-----------|----|-------|-----------|
| 20 | 15.00 | 4    | 1800 | 256TD | 230/460 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 |
| 93.0           | 93.5     | 93.0     | 0.87             | 0.84     | 0.77     |

| LRT% | BDT % | Full Load Amps | Locked Rotor Amps | Full Load RPM |
|------|-------|----------------|-------------------|---------------|
|      |       | 460 V          | 460 V             |               |
| 210  | 250   | 23.30          | 152.00            | 1765          |

| NEMA KVA Code | Bearing Size |               | Oil Seal    |               | Sound Level |
|---------------|--------------|---------------|-------------|---------------|-------------|
|               | Drive End    | Non-Drive End | Drive End   | Non-Drive End | dB(A)       |
| H             | 63092Z       | 63072Z        | 45 x 60 x 8 | 35 x 47 x 7   | 56          |

\*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-DF254.6TD.pdf>

**Click Link Below For Connection Diagram**

<http://www.brookcromptonna.com/Connections/Connection%20Diagram%2012%20Lead%20X4%20NEMA.pdf>

Notes:

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**GENERAL INFORMATION**

| HP | KW    | Pole | RPM  | Frame | Voltage | Hz | Phase | IP Rating |
|----|-------|------|------|-------|---------|----|-------|-----------|
| 20 | 15.00 | 4    | 1500 | 256TD | 400 V   | 50 | 3     | IP55      |

| Enclosure | Ins. Class | Service Factor | Time Rating | NEMA Design | Rated Amb.   | Rated Altitude |
|-----------|------------|----------------|-------------|-------------|--------------|----------------|
| TEFC      | F          | 1.00           | 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 |
| 90.2           | 91.5     | 92.5     | 0.89             | 0.88     | 0.83     |

| LRT % | BDT % | Full Load Amps |  | Locked Rotor Amps |  | Full Load RPM |
|-------|-------|----------------|--|-------------------|--|---------------|
|       |       | 400 V          |  | 400 V             |  |               |
| 210   | 250   | 26.80          |  | 174.80            |  | 1450          |

| NEMA KVA Code | Bearing Size |               | Oil Seal    |               | Sound Level |
|---------------|--------------|---------------|-------------|---------------|-------------|
|               | Drive End    | Non-Drive End | Drive End   | Non-Drive End | dB(A)       |
| H             | 63092Z       | 63072Z        | 45 x 60 x 8 | 35 x 47 x 7   | 56          |

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

**VFD DUTY INFORMATION**

|   | Variable Torque | Constant Torque | Rating   |
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| - | 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-DF254.6TD.pdf>

**Click Link Below For Connection Diagram**

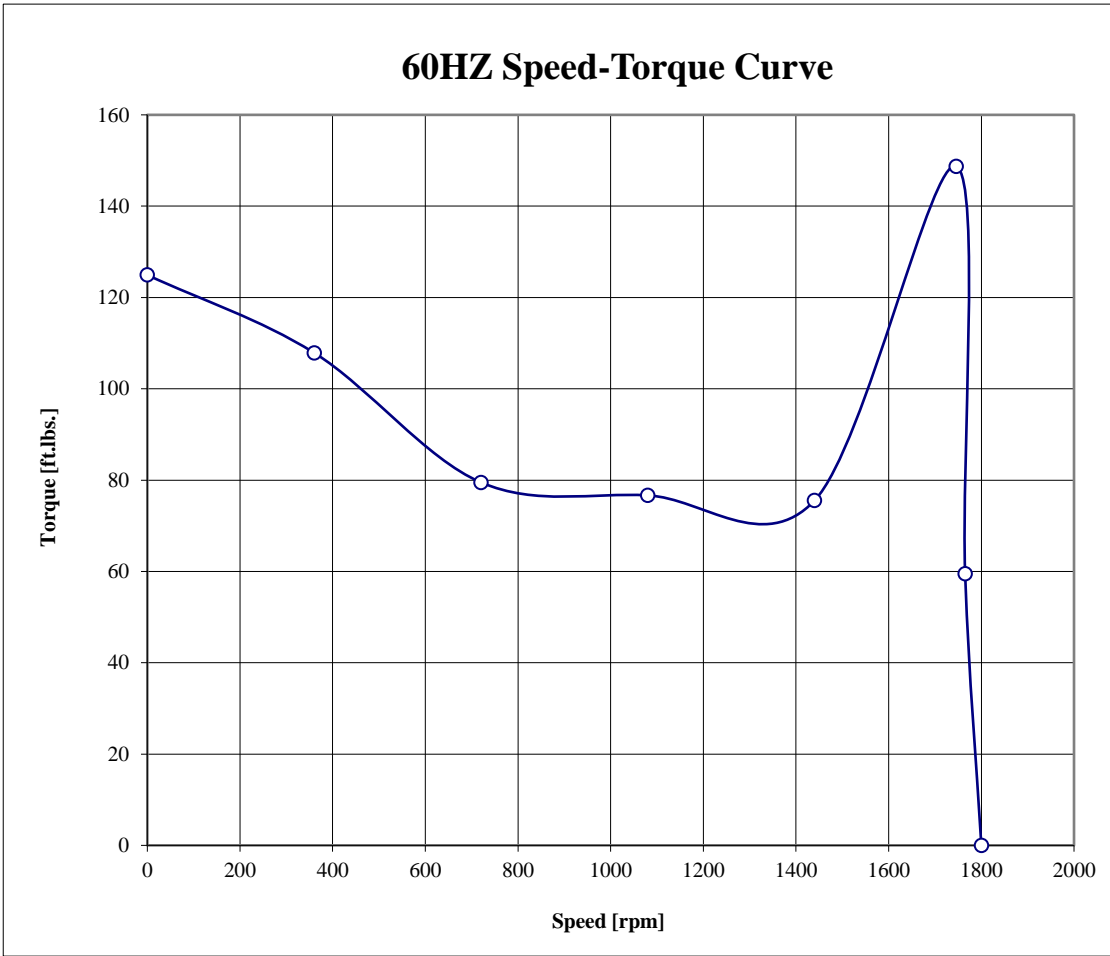
<http://www.brookcrompton.com/Connections/Connection%20Diagram%2012%20Lead%202X4%20NEMA.pdf>

Notes:

**Motor: BC4N020-4D**

|  |                  |       |              |       |          |
|--|------------------|-------|--------------|-------|----------|
|  | <b>Frame:</b>    | 256TD | 20 HP        | 460 V |          |
|  | <b>Pole no.:</b> | 4     | 59.5 ft.lbs. | 60 Hz | 1765 rpm |

|                               |     |     |     |      |      |      |       |      |
|-------------------------------|-----|-----|-----|------|------|------|-------|------|
| <b>Speed</b>                  | 0   | 360 | 720 | 1080 | 1440 | 1746 | 1765  | 1800 |
| <b>Speed ratios</b>           | 0   | 0.2 | 0.4 | 0.6  | 0.8  | 0.97 | 0.981 | 1    |
| <b>Mot. torque ratios</b>     | 2.1 | 1.8 | 1.3 | 1.3  | 1.3  | 2.5  | 1     | 0    |
| <b>Motor torque / ft.lbs.</b> | 125 | 108 | 80  | 77   | 76   | 149  | 59    | 0    |

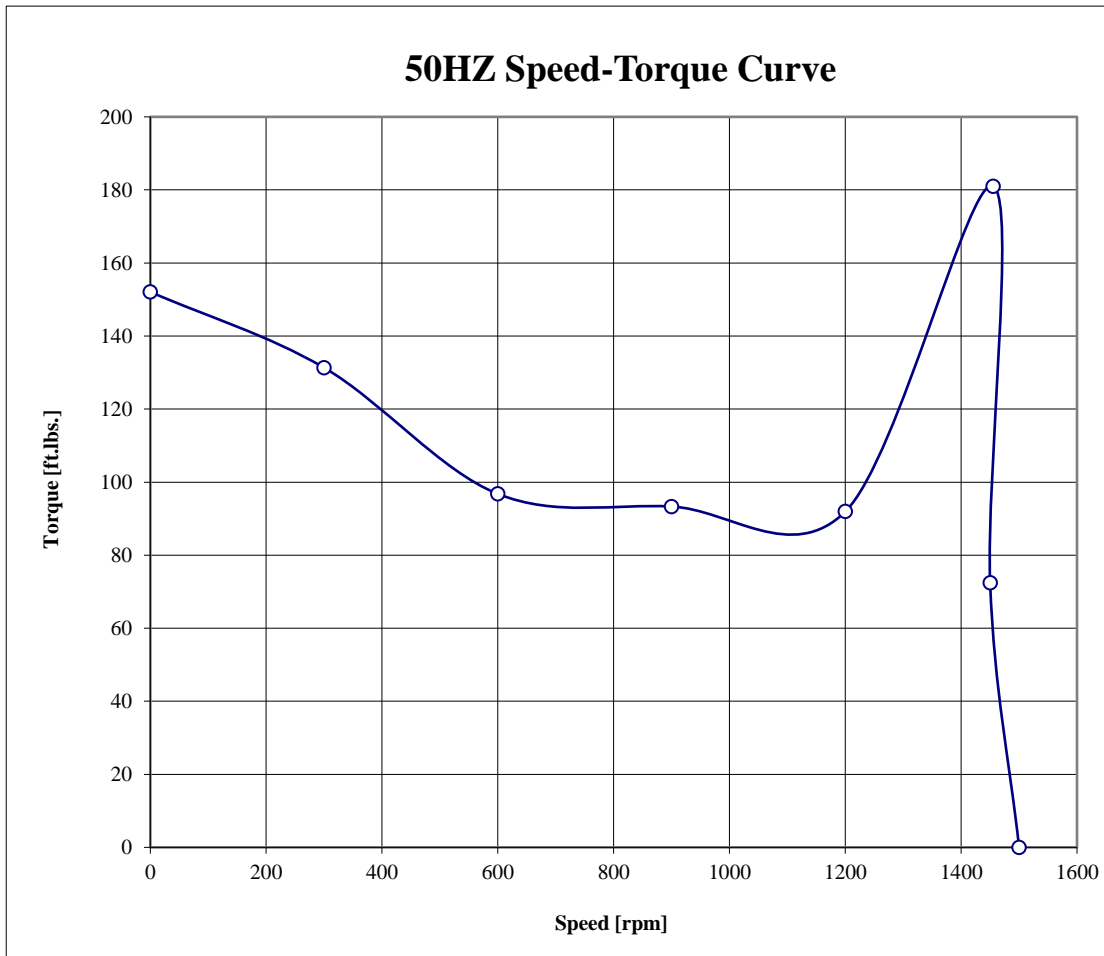


\*Curve base on calculated values

**Motor: BC4N020-4D**

|  |                  |       |              |       |          |
|--|------------------|-------|--------------|-------|----------|
|  | <b>Frame:</b>    | 256TD | 20 HP        | 400 V |          |
|  | <b>Pole no.:</b> | 4     | 72.4 ft.lbs. | 50 Hz | 1450 rpm |

|                               |     |     |     |     |      |      |       |      |
|-------------------------------|-----|-----|-----|-----|------|------|-------|------|
| <b>Speed</b>                  | 0   | 300 | 600 | 900 | 1200 | 1455 | 1450  | 1500 |
| <b>Speed ratios</b>           | 0   | 0.2 | 0.4 | 0.6 | 0.8  | 0.97 | 0.967 | 1    |
| <b>Mot. torque ratios</b>     | 2.1 | 1.8 | 1.3 | 1.3 | 1.3  | 2.5  | 1     | 0    |
| <b>Motor torque / ft.lbs.</b> | 152 | 131 | 97  | 93  | 92   | 181  | 72    | 0    |



\*Curve base on calculated values