

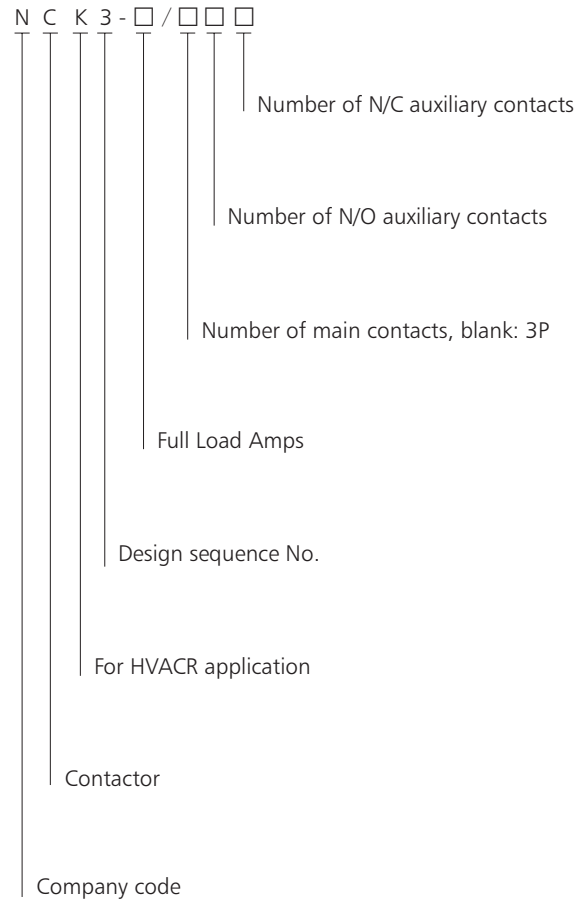


## NCK3 Definite Purpose Contactor, 25~90A

### 1. General

- 1.1 Certificates: UL;
- 1.2 Application: HVACR;
- 1.3 Utilization category: AC-1, AC-8a;
- 1.4 Rated insulation voltage: 630V;
- 1.5 Standard: UL508

### 2. Type designation



### 3. Technical data

#### 3.1 Contactor

##### ★ NCK3, 1P+shunt

| Model     | Full Load Amps (A) | Line Voltage (V) | Locked Rotor Amps (A) | Conventional free air thermal current (A) |
|-----------|--------------------|------------------|-----------------------|---|
| NCK3-20/1 | 20                 | 277              | 150                   | 32  |
| NCK3-25/1 | 25                 | 277              | 150                   | 32  |
| NCK3-30/1 | 30                 | 277              | 200                   | 40  |
| NCK3-32/1 | 32                 | 277              | 200                   | 40  |
| NCK3-40/1 | 40                 | 277              | 240                   | 50  |

##### ★ NCK3, 1pole+1NC auxiliary contact

| Model       | Full Load Amps (A) | Line Voltage (V) | Locked Rotor Amps (A) | Conventional free air thermal current (A) |
|-------------|--------------------|------------------|-----------------------|---|
| NCK3-20/101 | 20                 | 277              | 150                   | 32  |
| NCK3-25/101 | 25                 | 277              | 150                   | 32  |
| NCK3-30/101 | 30                 | 277              | 200                   | 40  |
| NCK3-32/101 | 32                 | 277              | 200                   | 40  |
| NCK3-40/101 | 40                 | 277              | 240                   | 50  |

3.2 Contactor

★ NCK3, 2Pole

| Model     | Full Load Amps (A) | Line Voltage (V) | Locked Rotor Amps(A) | Conventional free air thermal current(A) |
|-----------|--------------------|------------------|----------------------|--|
| NCK3-20/2 | 20                 | 240/277          | 150                  | 32                                       |
|           | 20                 | 480              | 120                  |  |
|           | 15                 | 600              | 90                   |  |
| NCK3-25/2 | 25                 | 240/277          | 150                  | 32                                       |
|           | 20                 | 480              | 120                  |  |
|           | 15                 | 600              | 90                   |  |
| NCK3-30/2 | 30                 | 240/277          | 200                  | 40                                       |
|           | 25                 | 480              | 150                  |  |
|           | 20                 | 600              | 120                  |  |
| NCK3-32/2 | 32                 | 240/277          | 200                  | 40                                       |
|           | 25                 | 480              | 150                  |  |
|           | 20                 | 600              | 120                  |  |
| NCK3-40/2 | 40                 | 240/277          | 240                  | 50                                       |
|           | 32                 | 480              | 200                  |  |
|           | 25                 | 600              | 160                  |  |

★ NCK3, 3Pole

| Model   | Full Load Amps(A) | Line Voltage (V) | Locked Rotor Amps(A) | Conventional free air thermal current(A) | Horsepower |
|---------|-------------------|------------------|----------------------|--|------------|
| NCK3-20 | 20                | 240/277          | 150                  | 32                                       | 7.5        |
|         | 20                | 480              | 110                  |  | 10         |
|         | 15                | 600              | 90                   |  | 10         |
| NCK3-25 | 25                | 240/277          | 150                  | 32                                       | 7.5        |
|         | 20                | 480              | 110                  |  | 10         |
|         | 15                | 600              | 90                   |  | 10         |
| NCK3-30 | 32                | 240/277          | 200                  | 40                                       | 10         |
|         | 25                | 480              | 115                  |  | 15         |
|         | 20                | 600              | 95                   |  | 15         |
| NCK3-32 | 32                | 240/277          | 200                  | 40                                       | 10         |
|         | 25                | 480              | 115                  |  | 15         |
|         | 20                | 600              | 95                   |  | 15         |
| NCK3-40 | 40                | 240/277          | 240                  | 50                                       | 10         |
|         | 32                | 480              | 150                  |  | 20         |
|         | 25                | 600              | 120                  |  | 20         |
| NCK3-50 | 50                | 240/277          | 300                  | 60                                       | 15         |
|         | 40                | 480              | 215                  |  | 30         |
|         | 32                | 600              | 175                  |  | 30         |
| NCK3-60 | 60                | 240/277          | 360                  | 75                                       | 20         |
|         | 40                | 480              | 215                  |  | 30         |
|         | 32                | 600              | 175                  |  | 30         |
| NCK3-75 | 75                | 240/277          | 450                  | 90                                       | 25         |
|         | 60                | 480              | 375                  |  | 50         |
|         | 50                | 600              | 300                  |  | 50         |
| NCK3-90 | 90                | 240/277          | 540                  | 100                                      | 30         |
|         | 75                | 480              | 450                  |  | 60         |
|         | 60                | 600              | 360                  |  | 60         |

### 3.3 Coil specifications

#### 1Pole+shunt, 1Pole+1 NC, auxiliary contact, 2Pole

| Model                   |                   | NCK3-25(20)                          | NCK3-30(32) | NCK3-40 |
|-------------------------|-------------------|--------------------------------------|-------------|---------|
| Power consumption       | In-rush (VA)      | 55                                   | 55          | 55      |
|                         | Sealed (VA)       | 13                                   | 13          | 13      |
| Operation range         | Operation voltage | (85%~110%) Us                        |             |         |
|                         | Drop-out voltage  | (20%~65%) Us                         |             |         |
| Power supply voltage Us |                   | AC50/60Hz, 24V, 110V/120V, 220V/240V |             |         |

#### 3Pole

| Model                   |                   | NCK3-20~40                           | NCK3-50~60 | NCK3-75~90 |
|-------------------------|-------------------|--------------------------------------|------------|------------|
| Power consumption       | In-rush (VA)      | 51                                   | 83         | 165        |
|                         | Sealed (VA)       | 12                                   | 14         | 30         |
| Operation range         | Operation voltage | (85%~110%) Us                        |            |            |
|                         | Drop-out voltage  | (20%~65%) Us                         |            |            |
| Power supply voltage Us |                   | AC50/60Hz, 24V, 110V/120V, 220V/240V |            |            |

### 3.4 Specifications of auxiliary contact

#### 1Pole+ 1 NC auxiliary contact

| Ith (A) | Ui (V) | Capacity of auxiliary contact |        |
|---------|--------|-------------------------------|--------|
|         |        | AC (VA)                       | DC (W) |
| 10      | 600    | 300                           | 30     |

#### 3Pole, lateral auxiliary contact

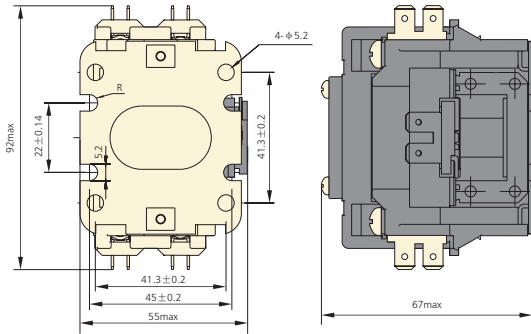
| Utilization category | Rated insulation voltage (V) | Resistive amps (A) | Rated operational voltage (V) | Rated operational current (A) | Control capacity |
|----------------------|------------------------------|--------------------|-------------------------------|-------------------------------|------------------|
| AC-15                | 660V                         | 10                 | 380/400                       | 0.95                          | 360VA            |
| DC-13                | 660V                         | 10                 | 220/230                       | 0.15                          | 33W              |

### 4. Terminal connection

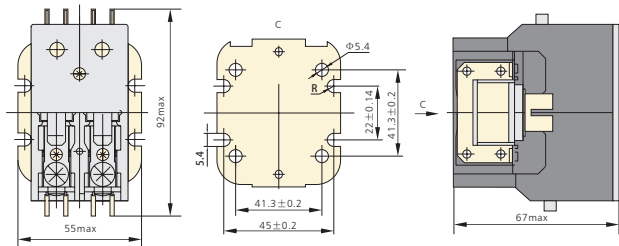
| Model   | Cabling(mm <sup>2</sup> ) (Cu) |                        | Tightening torque (N · m) |              |
|---------|--------------------------------|------------------------|---------------------------|--------------|
|         | Rigid wire with single core    | Flexible stranded wire | Coil                      | Main circuit |
| NCK3-20 | 2.5~6                          | 2.5~4                  | -                         | 1.8~2        |
| NCK3-25 | 2.5~6                          | 2.5~4                  | -                         | 1.8~2        |
| NCK3-32 | 4~10                           | 2.5~6                  | -                         | 1.8~2        |
| NCK3-40 | 4~10                           | 2.5~6                  | -                         | 1.8~2        |
| NCK3-50 | 6~16                           | 4~10                   | 0.8~1.2                   | 4~10         |
| NCK3-60 | 6~16                           | 4~10                   | 0.8~1.2                   | 4~10         |
| NCK3-75 | 16~35                          | 10~25                  | 0.8~1.2                   | 4~14         |
| NCK3-90 | 25~35                          | 16~25                  | 0.8~1.2                   | 4~14         |

**5. Overall and mounting dimensions (mm)**

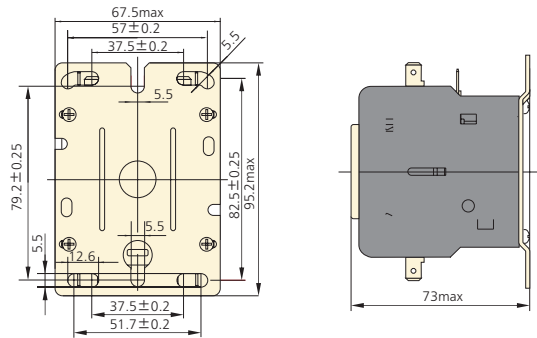
NCK3-20/1~40/1



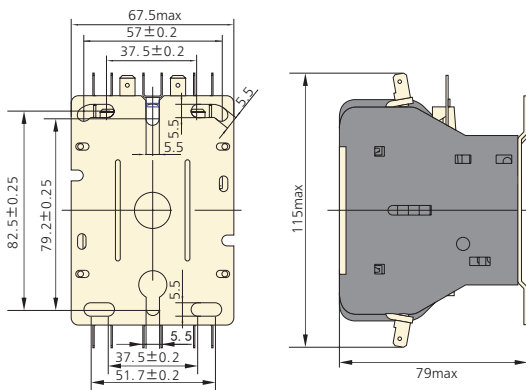
NCK3-20/2~40/2



NCK3-20~40



NCK3-50~60



NCK3-75~90

