

Product Details and Certifications

Cross Reference RA Part Number: PN-D13254

 Product: **140G-NRP-D40**

Description: 400A Rating Plug

CIRCUIT BREAKER DATA

| | |
|------------------|--|
| Bulletin Number | 140G Molded Case Circuit Breaker Accessories |
| Number of Poles | 3 Poles |
| Frame Size | N frame |
| Rated Current(A) | 400 A |

ACCESSORY ITEMS

| | |
|-------------|------------------|
| Rating Plug | 400A Rating Plug |
|-------------|------------------|

Maintenance Mode (MM)

Maintenance Mode (MM) offers a preset set of protection parameters. MM allows systems testing when the molded case circuit breaker is energized or ON. This feature is a manual adjustment on the molded case circuit breaker, via a DIP switch. The following table illustrates the preset values for Maintenance Mode.

| Rated Current I_n [A] | L | | S | | I | G | | MM |
|----------------------------|--------------------|----------------|-----------|----------------|--------------------|-----------|----------------|----------------------|
| | $I_1=1 \times I_n$ | $t_1=MAX$ sec. | $I_2=OFF$ | $t_2=OFF$ sec. | $I_3=4 \times I_n$ | $I_4=OFF$ | $t_4=OFF$ sec. | $I_5=2.5 \times I_n$ |
| 1200 | 480...1200 | 3...144 | — | — | — | — | — | 1800...4800 |

Molded Case Switch — UL489‡

| Rated Current I_n [A] | Magnetic Trip [A] I_m | Cat. No. | |
|----------------------------|-------------------------------|---------------|---------------|
| | | 3 Poles | 4 Poles |
| 1200 | 20 000 | 140G-N6S3-E12 | 140G-N6S4-E12 |



‡ Does not provide overcurrent protection; may open above 20,000 A.

Trip Units, Electronic LSI (Long, Short, Instantaneous), LSIG (Long, Short, Instantaneous, Ground Fault), LSIG-MM (Long, Short, Instantaneous, Ground Fault - Maintenance Mode)§

| Rated Current I_n [A] | Protection Type | Cat. No. |
|----------------------------|-----------------|--------------|
| | | 3 Poles |
| 1200 | H (LSI) | 140G-NTH-E12 |
| 1200 | I (LSIG) | 140G-NTI-E12 |
| 1200 | K (LSIG-MM) | 140G-NTK-E12 |



§ Supplied installed with each MCCB. Cat. Nos. listed are replacement parts.

Rating Plugs

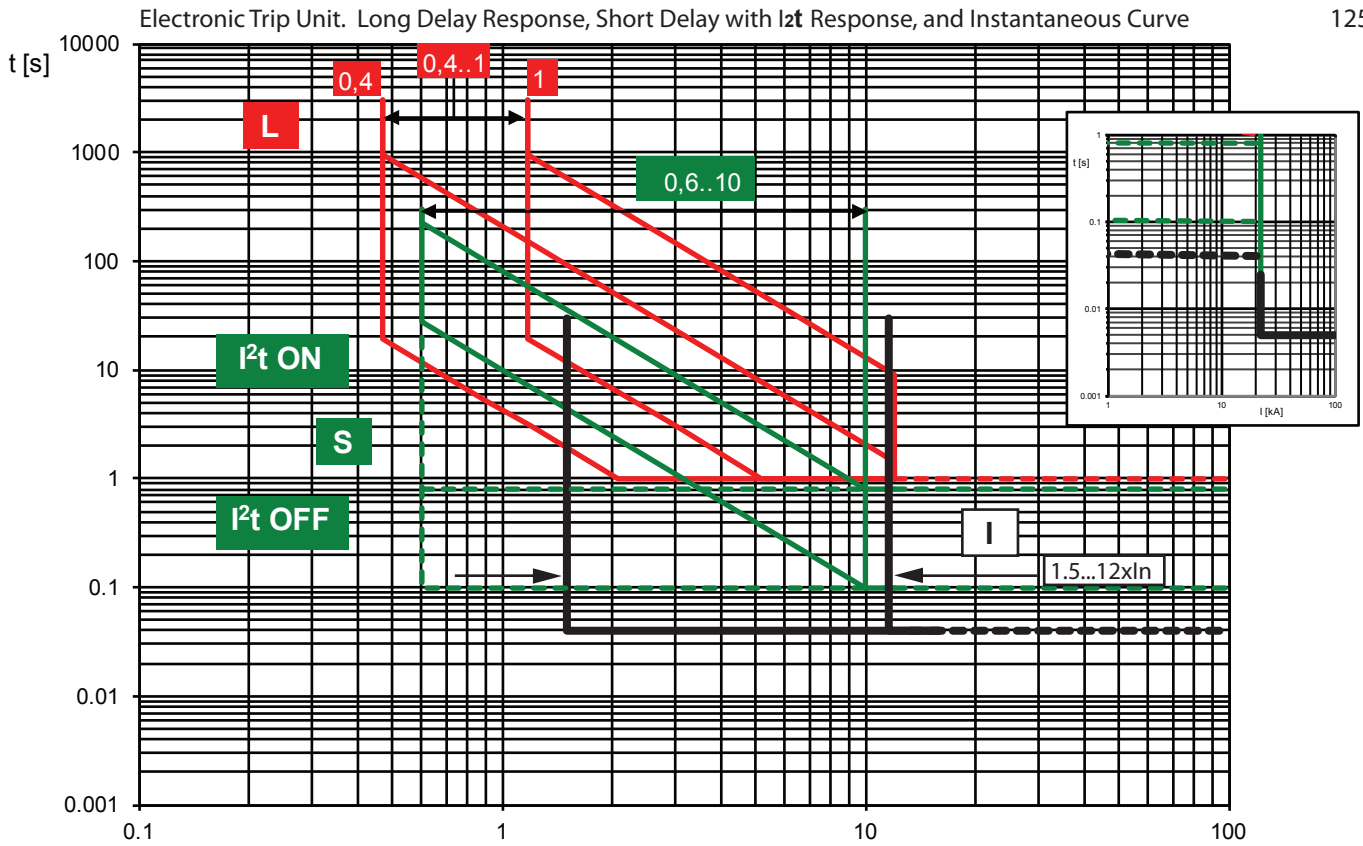
| Rated Current I_n [A] | Cat. No. |
|----------------------------|---------------|
| 400 | 140G-NRP-D40 |
| 600 | 140G-NRP-D60 |
| 800 | 140G-NRP-D80 |
| 1000 | 140G-NRP-E10 |
| 1200 | 140G-NRP-E12 |
| 1250 ★ | 140G-NRP-E125 |



★ IEC only.

Time-Current Curves for Bulletin 140G-N (-NS) Molded Case Circuit Breaker

Available Rating Plugs: (In):
400; 600; 800; 1000; 1200;
1250A (IEC)



| Protection | Disa ble | Trip Threshold | Trip Time | Trip Threshold Tolerance ⁽²⁾ | Trip Time Tolerance ⁽²⁾ |
|--------------------|-------------|---|---|--|---|
| L ($t=k/I^2$) | | $I_1 = 0.4-0.44-0.48-0.52-... 1 \times I_n$ | $t_1 = 3-6-12-18$ s ⁽¹⁾ @ $6I_1$ | Release between 1.05 and 1.2 $\times I_1$ | $\pm 10\%$ $I_g \leq 6 \times I_n$ |
| S ($t=k$) | ✓ | $I_2 = 0.6-0.8-1.2-1.8-2.4-3-3.6-4.2-5-5.8-6.6-7.4-8.2-9-10 \times I_n$ | with $I > I_2$ $t_2 = 0.1-0.25-0.5-0.8$ s | $\pm 7\%$ $I_g \leq 6 \times I_n$ $\pm 10\%$ $I_g > 6 \times I_n$ | The best of: $\pm 10\%$ or ± 40 ms |
| S ($t=k/I^2$) | ✓ | $I_2 = 0.6-0.8-1.2-1.8-2.4-3-3.6-4.2-5-5.8-6.6-7.4-8.2-9-10 \times I_n$ | $I = 10 \times I_n$ $t_2 = 0.1-0.25-0.5-0.8$ s | $\pm 7\%$ $I_g \leq 6 \times I_n$ $\pm 10\%$ $I_g > 6 \times I_n$ | $\pm 15\%$ $I_g \leq 6 \times I_n$ $\pm 20\%$ $I_g > 6 \times I_n$ |
| I ($t=k$) | ✓ | $I_3 = 1.5-2.5-3-4-4.5-5-5.5-6.5-7-7.5-8-9-9.5-10.5-12- x I_n$ | ≤ 30 ms | $\pm 10\%$ | |

Notes:

- The minimum value of this trip is 1s regardless of curve type (self-protection)
- These tolerances apply under the following conditions:
 - self-powered relay at full power (without start-up)
 - presence of auxiliary power supply
 - two-phase or three-phase power supply
 - preset trip time ≥ 100 ms
- Curve accuracy applies from -20 C to +55 C ambient.
For possible continuous ampere derating for ambient above 40 C, consult Rockwell Automation.
- The right portion of the curve is determined by the interrupting rating of the circuit breaker.
- Total clearing times shown include the response times of the trip unit, the breaker opening, and the interruption of the current.
- For high fault current levels an additional fixed instantaneous hardware override is provided at 22kA.

For all cases not covered by the above assumptions, the following tolerance values apply:

| Protection | Trip Threshold | Trip Time |
|------------|-----------------------------|--------------|
| L | $1.05 \leq x I_1 \leq 1.25$ | $\pm 20\%$ |
| S | $\pm 10\%$ | $\pm 20\%$ |
| I | $\pm 15\%$ | ≤ 60 ms |
| Others | $\pm 20\%$ | |