

## Toroid Power Transformers *1182 Series*

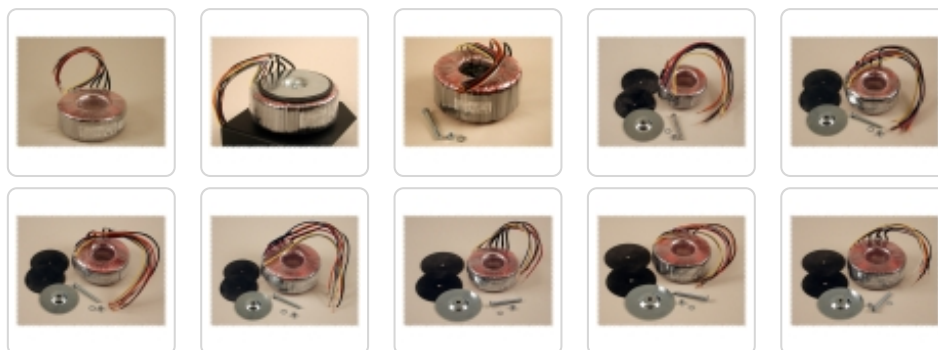


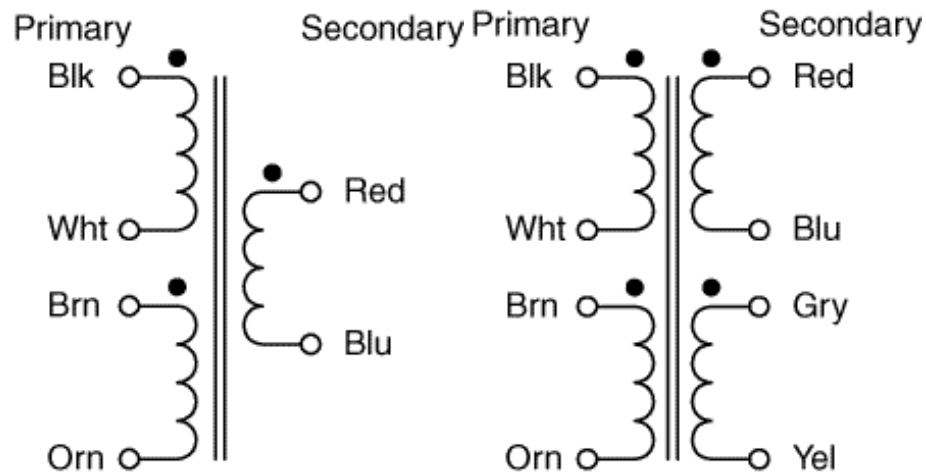
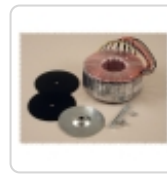
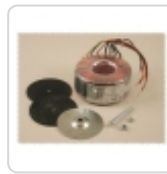
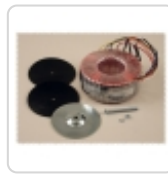
### Features

- Torodial transformer benefits:
  - low profile
  - lightweight
  - cool running / high efficiency
  - due to the core shape - low stray magnetic flux leakage (low EMI)
- Dual 117/234 VAC primary, 50/60 Hz. operation.
- Note: Units are designed to have all windings engaged (either series or parallel connected) or connected as an autotransformer. Connection sheet included with transformer. *See Product Resources for Download.*
- Supplied with two rubber insulating pads, one metal centering washer and all mounting hardware (except the 1,500 VA size).
- 1,500 VA size - is supplied with a potted center for extra strength.
- Minimum 8" long flexible leads
- Manufactured using Class B (130 degree C) materials.
- Hi-Pot test of 4,000VAC RMS between primary & secondary
- UL recognized to UL506 (XPTQ2.Guide) UL file #E207860
- CSA certified to C22.2 #66 - CSA file #209651
- CE compliant to IEC 61558-2-4
- This series replaces our older **182 Toroid Series**.
- **Note about Inrush Current:**  
 Due to the superior magnetic properties of Toroidal transformers they will be susceptible to high magnetizing current when initially energized, only limited by the low DC resistance of the primary winding. Depending on where you are in the AC cycle when the transformer is energized dictates the chances of overloading the supply circuit. This is why the transformer may sometimes energize without a problem and other times it will blow the fuse or trip the circuit breaker. The duration of this overload is rarely longer than a half of a cycle. Therefore, you should consider using a slow-blow fuse, time delayed circuit breaker or other form of soft start circuitry for the supply line when using these high efficient Toroidal transformers.



### Gallery





| Part No. | VA   | VAC Secondary (RMS) |              | Dual or Single Secondary | % Voltage Regulation | Toroid Center | Dim. Ref |
|----------|------|---------------------|--------------|--------------------------|----------------------|---------------|----------|
|          |      | Series              | Parallel     |                          |                      |               |          |
| 1182L6   | 30   | 12V C.T. @ 2.5A     | 6V @ 5A      | Dual                     | 11.70%               | Open          | B        |
| 1182N6   | 50   | 12V C.T. @ 4.17A    | 6V @ 8.34A   | Dual                     | 12.60%               | Open          | C        |
| 1182Q6   | 80   | 12V C.T. @ 6.67A    | 6V @ 13.34A  | Dual                     | 9.70%                | Open          | D        |
| 1182K9   | 30   | 18V C.T. @ 1.67A    | 9V @ 3.34A   | Dual                     | 12.80%               | Open          | B        |
| 1182M9   | 50   | 18V C.T. @ 2.78A    | 9V @ 5.56A   | Dual                     | 13.20%               | Open          | C        |
| 1182N9   | 80   | 18V C.T. @ 4.44A    | 9V @ 8.88A   | Dual                     | 10.50%               | Open          | D        |
| 1182Q9   | 120  | 18V C.T. @ 6.67A    | 9V @ 13.34A  | Dual                     | 9.00%                | Open          | E        |
| 1182K12  | 30   | 24V C.T. @ 1.25A    | 12V @ 2.5A   | Dual                     | 11.70%               | Open          | B        |
| 1182L12  | 50   | 24V C.T. @ 2.08A    | 12V @ 4.16A  | Dual                     | 12.60%               | Open          | C        |
| 1182M12  | 80   | 24V C.T. @ 3.33A    | 12V @ 6.66A  | Dual                     | 9.70%                | Open          | D        |
| 1182P12  | 120  | 24V C.T. @ 5A       | 12V @ 10A    | Dual                     | 7.70%                | Open          | E        |
| 1182Q12  | 160  | 24V C.T. @ 6.67A    | 12V @ 13.34A | Dual                     | 7.70%                | Open          | F        |
| 1182S12  | 225  | 24V C.T. @ 9.38A    | 12V @ 18.76A | Dual                     | 7.20%                | Open          | G        |
| 1182T12  | 300  | 24V C.T. @ 12.5A    | 12V @ 25A    | Dual                     | 7.10%                | Open          | H        |
| 1182W12  | 1000 | 24V C.T. @ 41.7A    | 12V @ 83.4A  | Dual                     | 2.20%                | Open          | L-1      |
| 1182J15  | 30   | 30V C.T. @ 1A       | 15V @ 2A     | Dual                     | 12.30%               | Open          | B        |
| 1182K15  | 50   | 30V C.T. @ 1.67A    | 15V @ 3.34A  | Dual                     | 13.00%               | Open          | C        |
| 1182M15  | 80   | 30V C.T. @ 2.67A    | 15V @ 5.34A  | Dual                     | 10.20%               | Open          | D        |
| 1182N15  | 120  | 30V C.T. @ 4A       | 15V @ 8A     | Dual                     | 8.50%                | Open          | E        |
| 1182P15  | 160  | 30V C.T. @ 5.33A    | 15V @ 10.66A | Dual                     | 7.00%                | Open          | F        |
| 1182H15  | 225  | 30V C.T. @ 7.5A     | 15V @ 15A    | Dual                     | 7.20%                | Open          | G        |
| 1182S15  | 300  | 30V C.T. @ 10A      | 15V @ 20A    | Dual                     | 5.00%                | Open          | H        |
| 1182H18  | 30   | 36V C.T. @ 0.83A    | 18V @ 1.66A  | Dual                     | 12.20%               | Open          | B        |
| 1182J18  | 50   | 36V C.T. @ 1.39A    | 18V @ 2.78A  | Dual                     | 13.80%               | Open          | C        |
| 1182L18  | 80   | 36V C.T. @ 2.22A    | 18V @ 4.44A  | Dual                     | 10.50%               | Open          | D        |
| 1182M18  | 120  | 36V C.T. @ 3.33A    | 18V @ 6.66A  | Dual                     | 7.70%                | Open          | E        |
| 1182N18  | 160  | 36V C.T. @ 4.44A    | 18V @ 8.88A  | Dual                     | 7.70%                | Open          | F        |
| 1182G18  | 225  | 36V C.T. @ 6.25A    | 18V @ 12.5A  | Dual                     | 7.30%                | Open          | G        |
| 1182G22  | 30   | 44V C.T. @ 0.68A    | 22V @ 1.36A  | Dual                     | 12.60%               | Open          | B        |
| 1182J22  | 50   | 44V C.T. @ 1.14A    | 22V @ 2.28A  | Dual                     | 14.20%               | Open          | C        |
| 1182L22  | 80   | 44V C.T. @ 1.82A    | 22V @ 3.64A  | Dual                     | 10.40%               | Open          | D        |
| 1182M22  | 120  | 44V C.T. @ 2.73A    | 22V @ 5.46A  | Dual                     | 8.40%                | Open          | E        |

| Part No. | VA   | VAC Secondary (RMS) |              | Dual or Single<br>Secondary | % Voltage<br>Regulation | Toroid<br>Center | Dim.<br>Ref |
|----------|------|---------------------|--------------|-----------------------------|-------------------------|------------------|-------------|
|          |      | Series              | Parallel     |                             |                         |                  |             |
| 1182N22  | 160  | 44V C.T. @ 3.64A    | 22V @ 7.28A  | Dual                        | 8.40%                   | Open             | F           |
| 1182P22  | 225  | 44V C.T. @ 5.11A    | 22V @ 10.22A | Dual                        | 6.40%                   | Open             | G           |
| 1182S24  | 500  | 48V C.T. @ 10.42A   | 24V @ 20.82A | Dual                        | 5.10%                   | Open             | I           |
| 1182T24  | 625  | 48V C.T. @ 13.02A   | 24V @ 26.04A | Dual                        | 3.30%                   | Open             | J           |
| 1182U24  | 750  | 48V C.T. @ 15.63A   | 24V @ 31.26A | Dual                        | 3.60%                   | Open             | L           |
| 1182V24  | 1000 | 48V C.T. @ 20.8A    | 24V @ 41.7A  | Dual                        | 2.20%                   | Open             | L           |
| 1182K30  | 80   | 60V C.T. @ 1.33A    | 30V @ 2.66A  | Dual                        | 9.70%                   | Open             | D           |
| 1182L30  | 120  | 60V C.T. @ 2A       | 30V @ 4A     | Dual                        | 7.70%                   | Open             | E           |
| 1182M30  | 160  | 60V C.T. @ 2.67A    | 30V @ 5.34A  | Dual                        | 7.70%                   | Open             | F           |
| 1182F30  | 225  | 60V C.T. @ 3.75A    | 30V @ 7.5A   | Dual                        | 6.30%                   | Open             | G           |
| 1182P30  | 300  | 60V C.T. @ 5A       | 30V @ 10A    | Dual                        | 6.10%                   | Open             | H           |
| 1182R30  | 500  | 60V C.T. @ 8.33A    | 30V @ 16.66A | Dual                        | 4.80%                   | Open             | I           |
| 1182S30  | 625  | 60V C.T. @ 10.42A   | 30V @ 20.84A | Dual                        | 4.10%                   | Open             | J           |
| 1182T30  | 750  | 60V C.T. @ 12.5A    | 30V @ 25A    | Dual                        | 3.10%                   | Open             | K           |
| 1182U30  | 1000 | 60V C.T. @ 16.7A    | 30V @ 33.3A  | Dual                        | 2.20%                   | Open             | L           |
| 1182V40P | 1500 | 80V C.T. @ 18.8A    | 40V @ 37.5A  | Dual                        | 3.70%                   | Potted           | M           |

| Part No.  | VA   | VAC Secondary (RMS) |              | Dual or Single<br>Secondary | % Voltage<br>Regulation | Toroid<br>Center | Dim.<br>Ref |
|-----------|------|---------------------|--------------|-----------------------------|-------------------------|------------------|-------------|
|           |      | Series              | Parallel     |                             |                         |                  |             |
| 1182L60   | 300  | 120V C.T. @ 2.5A    | 60V @ 5A     | Dual                        | 6.10%                   | Open             | H           |
| 1182N60   | 500  | 120V C.T. @ 4.17A   | 60V @ 8.34A  | Dual                        | 4.80%                   | Open             | I           |
| 1182P60   | 625  | 120V C.T. @ 5.21A   | 60V @ 10.42A | Dual                        | 4.10%                   | Open             | J           |
| 1182Q60   | 750  | 120V C.T. @ 6.25A   | 60V @ 12.5A  | Dual                        | 4.10%                   | Open             | K           |
| 1182R60   | 1000 | 120V C.T. @ 8.3A    | 60V @ 16.7A  | Dual                        | 2.80%                   | Open             | L           |
| 1182T60P  | 1500 | 120V C.T. @ 12.5A   | 60V @ 25A    | Dual                        | 3.00%                   | Potted           | M           |
| 1182E110  | 30   | 220V C.T. @ 136ma   | 110V @ 272ma | Dual                        | 13.10%                  | Open             | B           |
| 1182G110  | 50   | 220V C.T. @ 227ma   | 110V @ 454ma | Dual                        | 14.10%                  | Open             | C           |
| 1182H110  | 80   | 220V C.T. @ 364ma   | 110V @ 728ma | Dual                        | 10.50%                  | Open             | D           |
| 1182J110  | 120  | 220V C.T. @ 545ma   | 110V @ 1.09A | Dual                        | 8.40%                   | Open             | E           |
| 1182K110  | 160  | 220V C.T. @ 727ma   | 110V @ 1.45A | Dual                        | 8.00%                   | Open             | F           |
| 1182L110  | 225  | 220V C.T. @ 1.02A   | 110V @ 2.04A | Dual                        | 6.10%                   | Open             | G           |
| 1182M110  | 300  | 220V C.T. @ 1.36A   | 110V @ 2.72A | Dual                        | 6.10%                   | Open             | H           |
| 1182P110  | 500  | 220V C.T. @ 2.27A   | 110V @ 4.54A | Dual                        | 4.70%                   | Open             | I           |
| 1182Q110  | 625  | 220V C.T. @ 2.84A   | 110V @ 5.68A | Dual                        | 3.70%                   | Open             | J           |
| 1182R110  | 750  | 220V C.T. @ 3.41A   | 110V @ 6.82A | Dual                        | 3.10%                   | Open             | K           |
| 1182S110  | 1000 | 220V C.T. @ 4.5A    | 110V @ 9.1A  | Dual                        | 3.20%                   | Open             | L           |
| 1182U110P | 1500 | 220V C.T. @ 6.8A    | 110V @ 13.6A | Dual                        | 1.90%                   | Potted           | M           |
| 1182E117  | 30   | 234V C.T. @ 128ma   | 117V @ 256ma | Dual                        | 12.40%                  | Open             | B           |
| 1182G117  | 50   | 234V C.T. @ 214ma   | 117V @ 428ma | Dual                        | 13.40%                  | Open             | C           |
| 1182H117  | 80   | 234V C.T. @ 342ma   | 117V @ 684ma | Dual                        | 10.00%                  | Open             | D           |
| 1182J117  | 120  | 234V C.T. @ 513ma   | 117V @ 1.02A | Dual                        | 8.00%                   | Open             | E           |
| 1182K117  | 160  | 234V C.T. @ 684ma   | 117V @ 1.37A | Dual                        | 7.60%                   | Open             | F           |
| 1182L117  | 225  | 234V C.T. @ 0.96A   | 117V @ 1.92A | Dual                        | 6.00%                   | Open             | G           |
| 1182M117  | 300  | 234V C.T. @ 1.28A   | 117V @ 2.56A | Dual                        | 5.80%                   | Open             | H           |
| 1182N117  | 500  | 234V C.T. @ 2.14A   | 117V @ 4.28A | Dual                        | 4.70%                   | Open             | I           |
| 1182P117  | 625  | 234V C.T. @ 2.67A   | 117V @ 5.34A | Dual                        | 3.80%                   | Open             | J           |
| 1182Q117  | 750  | 234V C.T. @ 3.21A   | 117V @ 6.42A | Dual                        | 3.60%                   | Open             | K           |
| 1182R117  | 1000 | 234V C.T. @ 4.27A   | 117V @ 8.5A  | Dual                        | 3.00%                   | Open             | L           |
| 1182T117P | 1500 | 234V C.T. @ 6.4A    | 117V @ 12.8A | Dual                        | 2.10%                   | Potted           | M           |
| 1182D240  | 30   | -                   | 240V @ 125ma | Single                      | 12.30%                  | Open             | B           |
| 1182E240  | 50   | -                   | 240V @ 208ma | Single                      | 13.10%                  | Open             | C           |
| 1182F240  | 80   | -                   | 240V @ 333ma | Single                      | 9.90%                   | Open             | D           |
| 1182G240  | 120  | -                   | 240V @ 0.5A  | Single                      | 7.90%                   | Open             | E           |

| Part No.  | VA   | VAC Secondary (RMS) |              | Dual or Single Secondary | % Voltage Regulation | Toroid Center | Dim. Ref |
|-----------|------|---------------------|--------------|--------------------------|----------------------|---------------|----------|
|           |      | Series              | Parallel     |                          |                      |               |          |
| 1182H240  | 160  | -                   | 240V @ 667ma | Single                   | 7.70%                | Open          | F        |
| 1182J240  | 225  | -                   | 240V @ 0.94A | Single                   | 5.80%                | Open          | G        |
| 1182K240  | 300  | -                   | 240V @ 1.25A | Single                   | 5.80%                | Open          | H        |
| 1182L240  | 500  | -                   | 240V @ 2.08A | Single                   | 4.80%                | Open          | I        |
| 1182M240  | 625  | -                   | 240V @ 2.6A  | Single                   | 3.70%                | Open          | J        |
| 1182N240  | 750  | -                   | 240V @ 3.13A | Single                   | 3.60%                | Open          | K        |
| 1182P240  | 1000 | -                   | 240V @ 4.17A | Single                   | 2.80%                | Open          | L        |
| 1182Q240P | 1500 | -                   | 240V @ 6.3A  | Single                   | 2.30%                | Potted        | M        |

### Mechanical & Schematic Data

| Dimension Reference | VA Size | Outside Diameter | Inside Height | Potted Diameter | Center | Included Mounting Hardware                                                                         | Weight (lbs.) (kg.) |      |
|---------------------|---------|------------------|---------------|-----------------|--------|----------------------------------------------------------------------------------------------------|---------------------|------|
| B                   | 30      | 3.00             | 1.25          | 1.50            | No     | 10-24 x 1.75" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 1.1                 | 0.5  |
| C                   | 50      | 3.25             | 1.50          | 1.25            | No     | 10-24 x 2.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 1.5                 | 0.7  |
| D                   | 80      | 3.50             | 1.50          | 1.60            | No     | 10-24 x 2.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 2.1                 | 1    |
| E                   | 120     | 3.75             | 1.63          | 1.45            | No     | 10-24 x 2.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 3                   | 1.3  |
| F                   | 160     | 4.25             | 1.75          | 1.70            | No     | 1/4-20 x 2.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 3.8                 | 1.7  |
| G                   | 225     | 4.50             | 1.88          | 1.62            | No     | 1/4-20 x 2.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 4.7                 | 2.1  |
| H                   | 300     | 4.88             | 1.88          | 1.85            | No     | 1/4-20 x 2.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 6                   | 2.7  |
| I                   | 500     | 5.50             | 2.25          | 2.30            | No     | 1/4-20 x 3.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 9                   | 4.1  |
| J                   | 625     | 5.88             | 2.38          | 2.45            | No     | 1/4-20 x 3.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 10.8                | 4.9  |
| K                   | 750     | 5.88             | 2.88          | 2.45            | No     | 3/8-16 x 3.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 12.9                | 5.8  |
| L                   | 1000    | 6.25             | 2.88          | 2.35            | No     | 3/8-16 x 3.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 16.3                | 7.4  |
| L-1                 | 1000    | 6.85             | 3.40          | 2               | No     | 3/8-16 x 3.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 16.3                | 7.4  |
| M                   | 1500    | 7.25             | 3.25          | Potted          | Yes    | 3/8-16 x 3.50" bolt, with nut, lockwasher & one (1) rubber bottom insulating pad                   | 23.2                | 10.5 |

### Additional Hardware Kits:

| Part No.     | For Use With                | Additional Hardware Kit (included with transformers)                                               | Metal Washer |       |               |           |
|--------------|-----------------------------|----------------------------------------------------------------------------------------------------|--------------|-------|---------------|-----------|
|              |                             |                                                                                                    | Steel        |       | Rubber Washer |           |
|              |                             |                                                                                                    | Diameter     | Gauge | Diameter      | Thickness |
| 1182KIT30    | 30VA Models                 | 10-24 x 1.75" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 2.37         | 18    | 2.50          | 0.06      |
| 1182KIT50    | 50VA, 80VA & 120VA Models   | 10-24 x 2.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads  | 2.37         | 18    | 2.50          | 0.06      |
| 1182KIT160   | 160VA, 225VA & 300VA Models | 1/4-20 x 2.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 3.56         | 16    | 3.75          | 0.06      |
| 1182KIT500   | 500VA & 625VA Models        | 1/4-20 x 3.00" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 4.30         | 16    | 4.75          | 0.09      |
| 1182KIT750   | 750VA & 1,000VA Models      | 3/8-16 x 3.50" bolt, with metal centering washer, nut, lockwasher & two (2) rubber insulating pads | 4.30         | 16    | 4.75          | 0.09      |
| 1182KIT1500P | 1,500VA Models              | 3/8-16 x 4.00" bolt, nut & lockwasher                                                              | N/A          |       | N/A           |           |

| Part No.           | Additional Hardware Kit<br>(included with transformers) |                                                                                                       | Metal Washer |       |               |           |
|--------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------|-------|---------------|-----------|
|                    | For Use With                                            |                                                                                                       | Steel        |       | Rubber Washer |           |
|                    |                                                         |                                                                                                       | Diameter     | Gauge | Diameter      | Thickness |
| <b>1182KIT1500</b> | Heavy Duty - Upgrade<br>Kit 1,500VA Models              | 3/8-16 x 4.50" bolt, with metal centering washer, nut,<br>lockwasher & two (2) rubber insulating pads | 4.30         | 16    | 6.00          | 0.12      |

*Data subject to change without notice*

# Mouser Electronics

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## Hammond:

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[1182Q12](#) [1182N60](#) [1182Q60](#) [1182N240](#) [1182N22](#) [1182N18](#) [1182N15](#) [1182N117](#) [1182M9](#) [1182M30](#) [1182M22](#)  
[1182M15](#) [1182N9](#) [1182S24](#) [1182V40](#) [1182V24](#) [1182U30](#) [1182U24](#) [1182U117](#) [1182U110](#) [1182T60](#) [1182T30](#)  
[1182T24](#) [1182T12](#) [1182Q240](#) [1182S30](#) [1182M12](#) [1182S15](#) [1182S12](#) [1182S110](#) [1182R60](#) [1182R30](#) [1182R117](#)  
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[1182J117](#) [1182J110](#) [1182H240](#) [1182H18](#) [1182H15](#) [1182K117](#) [1182H110](#) [1182J240](#) [1182G22](#) [1182G18](#)  
[1182G117](#) [1182G110](#) [1182F30](#) [1182F240](#) [1182D240](#) [1182H117](#) [1182L18](#) [1182M110](#) [1182L60](#) [1182L6](#) [1182L30](#)  
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[1182U110P](#) [1182Q240P](#) [1182T117P](#) [1182T60P](#)