Built on the field proven Series GRR chassis, the electric version offers many of the same benefits as the pneumatic. Plus, you receive the design flexibility of Your Motor, Your Way features.
**Major Benefits**

- Servomotor control provides acceleration, velocity, and position feedback.

- Compact design provides high grip force, large moment capacities, long jaw travel, and low overall weight for applications with limited space.

- Rugged construction withstands high impact and shock loads in demanding industrial environments.

- Three large diameter jaw guides spanning the length of the gripper provide stable jaw travel, long allowable tooling length, and high moment capacities.

- Robust rack and pinion jaw drive provides repeatable jaw positioning.

- **Your Motor, Your Way** allows motor and controls flexibility at no additional cost.

**ORDERING DATA:** SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

Example Ordering Data:

```
E G R  R  1  2  5  6  x
```

**Design No.**
- 5 - Metric
- 1 - Imperial

**Jaw Travel**
- 150 mm - 5.906 in
- 200 mm - 7.874 in
- 250 mm - 9.843 in
- 300 mm - 11.811 in
- 350 mm - 13.780 in

(Home positioning may reduce usable travel)

**Options**
- V1 - Fluoroplastic seals and wipers
- Z1 - Fully corrosion-resistant coating on jaw guides and drive racks.

**NOTE:** Fasteners are corrosion resistant as standard.

**Motor Mounting Code**
- W0174 - Direct mounting for Kollmorgen® AKM33H-AND2CA00
- Wxxxx - Open architecture part number code (configure code online)
- W0000 - Blank Motor Mounting

**Motor Code**
- M1095 - PHD-supplied Kollmorgen® AKM33H-AND2CA00 (performance comparable to PHD Series GRR Gripper)
- No Code - No Motor

**NOTE:** Design Number dictates imperial or metric mountings. Dowel pin holes are metric regardless of design number.

**MOUNTING OPTIONS & ACCESSORIES**

Blue shaded areas indicate accessories and are ordered by kit or part numbers.

Green shaded areas indicate options and are included in ordering code.

PROXIMITY SWITCHES, BRACKETS, AND TARGET KITS

www.phdinc.com/egrr • (800) 624-8511
### ENGINEERING DATA: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

#### SPECIFICATIONS

<table>
<thead>
<tr>
<th>INPUT TORQUE</th>
<th>SERIES EGRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Motor Speed Reducer</td>
<td>2.9 Nm min to 43.2 Nm max [26 in-lb min to 382 in-lb max]</td>
</tr>
<tr>
<td>With RW151 Motor Speed Reducer</td>
<td>0.3 Nm min to 3.8 Nm max [2.3 in-lb min to 34 in-lb max]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INPUT RUNNING SPEED</th>
<th>SERIES EGRR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Motor Speed Reducer</td>
<td>400 rpm max</td>
</tr>
<tr>
<td>With RW151 Motor Speed Reducer</td>
<td>6000 rpm max</td>
</tr>
</tbody>
</table>

- **JAW GRIP SPEED**: 50 mm/sec max [2 in/s max]
- **OPERATING TEMPERATURE**: -28° to +82° C [-20° to 180° F]
- **RATED LIFE**: 5 million cycles minimum
- **GRIP REPEATABILITY**: Within 0.05 mm [.002 inch] of original centered position
- **LUBRICATION**: Factory lubricated for rated life
- **MAINTENANCE**: Field repairable (except reducer)

*Jaw grip speed is speed which jaws contact gripped workpiece. Jaws may operate at faster speeds, but must decelerate to grip speed prior to grip.*

#### MODEL NUMBER

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>TOTAL JAW TRAVEL</th>
<th>GRIPPER WEIGHT</th>
<th>FULL TRAVERSE TIME FACTOR**</th>
<th>GRIP FORCE FACTOR CR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TRAVEL TOLERANCE</td>
<td>WITHOUT MOTOR SPEED REDUCER</td>
<td>WITH MOTOR SPEED REDUCER</td>
<td>WITH REDUCER &amp; M1095 MOTOR</td>
</tr>
<tr>
<td></td>
<td>+4.8 mm +0.189</td>
<td>+0.084</td>
<td>+0.084</td>
<td>+0.084</td>
</tr>
<tr>
<td>mm</td>
<td>in</td>
<td>kg</td>
<td>lb</td>
<td>kg</td>
</tr>
<tr>
<td>EGRR12-x-63 x 150</td>
<td>150</td>
<td>5.906</td>
<td>12.8</td>
<td>28.2</td>
</tr>
<tr>
<td>EGRR12-x-63 x 200</td>
<td>200</td>
<td>7.874</td>
<td>15.3</td>
<td>33.7</td>
</tr>
<tr>
<td>EGRR12-x-63 x 250</td>
<td>250</td>
<td>9.843</td>
<td>18.2</td>
<td>40.1</td>
</tr>
<tr>
<td>EGRR12-x-63 x 300</td>
<td>300</td>
<td>11.811</td>
<td>20.5</td>
<td>45.1</td>
</tr>
<tr>
<td>EGRR12-x-63 x 350</td>
<td>350</td>
<td>13.780</td>
<td>22.7</td>
<td>50.1</td>
</tr>
</tbody>
</table>

*Grip force varies with tooling length

**Time factors assume a total jaw acceleration and deceleration of 1G (0.5 G per jaw) to and from jaw running speed

#### MODEL NUMBER

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>JAW TRAVEL FACTOR Jw</th>
<th>JAW TRAVEL DIRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WITHOUT MOTOR SPEED REDUCER</td>
<td>WITH RW151 MOTOR SPEED REDUCER</td>
</tr>
<tr>
<td></td>
<td>METRIC</td>
<td>IMPERIAL</td>
</tr>
<tr>
<td>EGRR12-x-63 x 150</td>
<td>127.674</td>
<td>5.027</td>
</tr>
<tr>
<td>EGRR12-x-63 x 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGRR12-x-63 x 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGRR12-x-63 x 300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGRR12-x-63 x 350</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### MAXIMUM ALLOWABLE FORCES AND MOMENTS

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>Fa</th>
<th>Mx</th>
<th>My</th>
<th>Mz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>lb</td>
<td>Nm</td>
<td>in-lb</td>
</tr>
<tr>
<td>EGRR12-x-63 x 150</td>
<td>15570</td>
<td>3500</td>
<td>880</td>
<td>8000</td>
</tr>
<tr>
<td>EGRR12-x-63 x 200</td>
<td>15570</td>
<td>3500</td>
<td>990</td>
<td>9000</td>
</tr>
<tr>
<td>EGRR12-x-63 x 250</td>
<td>15570</td>
<td>3500</td>
<td>990</td>
<td>9000</td>
</tr>
<tr>
<td>EGRR12-x-63 x 300</td>
<td>15570</td>
<td>3500</td>
<td>990</td>
<td>9000</td>
</tr>
<tr>
<td>EGRR12-x-63 x 350</td>
<td>15570</td>
<td>3500</td>
<td>990</td>
<td>9000</td>
</tr>
</tbody>
</table>

**Fa**: Total for both jaws

**Mx**: Allowable moment per jaw, measured from jaw mounting surface

**My**: Allowable moment per jaw, measured from geometric center of jaw

**Mz**: Allowable moment per jaw, measured from jaw mounting surface

When calculating the value for Fa, include weight of tooling, part weight, acceleration, and external forces. When calculating values for Mx, My, and Mz, include the grip force per jaw, part weight, external forces, and acceleration as applicable.

**MOMENT VALUES ASSUME THE USE OF ALL THREADED MOUNTING HOLES.**
**ENGINEERING DATA:** SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

**GRIFF FORCE**
Total gripping force relative to tooling length is shown below at the stated torque applied to the motor speed reducer input shaft. Grip force per jaw equals the total grip force divided by two. The graphs also indicate the maximum tooling length and maximum rated grip force for each gripper size.

*Maximum rated performance

**TOOLING LENGTH FACTOR**
Jaw tooling should be designed so that the grip point is as close to the jaw surface as possible. As the grip point is moved away from the jaw surface, the applied moment causes jaw friction to increase, resulting in reduced effective grip force. The grip force factor (Gr) values given in the table are for zero tooling length (jaw surface).

The maximum load that grippers can handle will vary based on: size of the part being picked up, shape of the part, texture of the part, speed at which the part is transferred, shape of the fingers, etc. PHD recommends that the fingers of jaws be tooled or machined to conform to the shape of the part being gripped.
ENGINEERING DATA: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

GRIP FORCE EQUATIONS:

**METRIC:** TOTAL GRIP FORCE (N) = (Torque [Nm] x Gr) x Tooling Length Factor

**IMPERIAL:** TOTAL GRIP FORCE (lb) = (Torque [in-lb] x Gr) x Tooling Length Factor

GRIP FORCE CALCULATION EXAMPLE:

**Gripper:** Series EGRR Size 63 x 200

Common Parameters:
- Input Torque = 3.4 Nm [30 in-lb]
- Tooling Length = 254 mm [10 in]

1. Determine Grip Force Factor Gr = 937 [23.8] (from table on page 4)
2. Determine Tooling Length Factor = 0.84 [0.84] (from Tooling Length Factor graph on page 5)
3. Total Grip Force Calculations:
   - For Standard Unit: EGR12-5-63 x 200 [EGR12-1-63 x 200]
   - Total Grip Force = 3.4 Nm x 937 x 0.84 = 2676 N [30 in-lb x 23.8 x 0.84 = 600 lb]

FULL TRAVERSE TIME

Full traverse time is the shortest time possible for the jaws to completely traverse the total travel of the gripper. Use PHD Sizing Software to calculate the motion time for your specific motion profile. Full traverse time assumes that the jaws are accelerated at 1 G (0.5 G per jaw) up to the motor running speed, then travel at the motor running speed until decelerated at 1 G (0.5 G per jaw) to rest.

FULL TRAVERSE TIME EQUATION:

\[ \text{TIME (sec)} = (\text{Cr} + \text{Running Speed (rpm)}) + \left( \frac{\text{Running Speed (rpm)}}{69120} \right) \]

FULL TRAVERSE TIME CALCULATION EXAMPLE:

**Gripper:** Series EGRR Size 63 x 200

Common Parameters:
- Motor Running Speed = 5500 rpm

1. Determine Time Factors:
   - Cr = 1410 (from table on page 4)
2. Release Time Calculations:
   - For Standard Unit: EGR12-5-63 x 200 [EGR12-1-63 x 200]
   - Open or Close Time = [1410 ÷ 5500 rpm] + [5500 rpm ÷ 69120] = 0.336 sec

JAW TRAVEL EQUATIONS:

The jaw travel equation relates the rotation of the gripper or motor speed reducer input shaft to the linear travel of the jaws.

**METRIC:** TOTAL JAW TRAVEL (mm) = Input Shaft Rotation (rev) x Jr

**IMPERIAL:** TOTAL JAW TRAVEL (in) = Input Shaft Rotation (rev) x Jr

JAW TRAVEL CALCULATION EXAMPLE:

**Gripper:** Series EGRR Size 63 x 200 - RW151 - W0000

Common Parameters:
- Motor Rotation = 2 rev

1. Determine Jaw Travel Factor Jr = 8.512 [0.335] (from table on page 4)
2. Jaw Travel Calculations:
   - For Standard Unit: EGR12-5-63 x 200 - RW151 - W0000 [EGR12-1-63 x 200 - RW151 - W0000]
   - Total Jaw Travel = 2 rev x 8.512 = 17.024 mm [2 rev x 0.335 = 0.670 in]
**OPTIONS: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER**

### Z1 CORROSION-RESISTANT

Corrosion-resistant coating on jaw guides and drive racks provides enhanced environmental protection.

### V1 FLUORO-ELASTOMER SEALS

Fluoro-elastomer shock pads, seals, and wipers are available to achieve material compatibility with certain fluids. Material compatibility should be checked with the fluid manufacturer for proper application. This option includes Series GRR-V9 fluoro-elastomer seals and jaw guide wipers option.

### RW151 MOTOR SPEED REDUCER

A 15:1 drive ratio motor speed reducer is installed onto the gripper. The reducer is factory lubricated for the rated life of the gripper. The motor speed reducer provides a convenient means of matching the output torque and shaft speed of many motors to the input requirements of the gripper.

The reducer must be ordered with a motor mounting code. See page 9 for details.

Motor mounting fasteners and motor coupling are supplied unassembled along with assembly instructions.

Use -W0174 motor mount code to provide the proper interface for use with a PHD-supplied Kollmorgen® motor when option -M1095 is specified.

Use -W0000 motor mount code to order a motor mount intended for customer modification. See page 3.

The reducer can be easily removed from the gripper for ease of motor installation and field rotated into one of four positions.

#### Drive Link Between Gripper and Reducer

- **MMB Varies With Motor**
- **MMC SQ Varies With Motor**
- **MMA Varies With Motor**

#### Remove Bolts 4 Places to Rotate Reducer Into New Orientation

#### Rotate About This Point for Alternate Reducer Orientations

### NOTES:

1. ALL DIMENSIONS ARE SHOWN IN mm [in] AND ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED
2. OPTION Wxxxx MUST BE ORDERED WITH OPTION RW151
3. REDUCER IS SUPPLIED PREASSEMBLED IN ORIENTATION SHOWN, CUSTOMER MAY ROTATE INTO PREFERRED ORIENTATION AFTER RECEIPT
4. WHEN (-W0000) IS SPECIFIED, COUPLER IS SUPPLIED WITH UNFINISHED SHAFT BORE AND MOTOR MOUNTING PLATE IS SUPPLIED WITH DIMENSIONS SHOWN WITHOUT MOTOR MOUNTING FASTENERS
5. * Wxxxx CONFIGURED ONLINE

### TABLE: MOTOR SPEED REDUCER OPTIONS

<table>
<thead>
<tr>
<th>OPTION</th>
<th>MMA STANDARD</th>
<th>MMA OVERSIZED</th>
<th>MMB STANDARD</th>
<th>MMB OVERSIZED</th>
<th>MMC SQUARE STANDARD</th>
<th>MMC SQUARE OVERSIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td>W0174</td>
<td>93.6 [3.685]</td>
<td>—</td>
<td>—</td>
<td>15.5 [.610]</td>
<td>—</td>
<td>70.0 [2.756]</td>
</tr>
<tr>
<td>Wxxxx*</td>
<td>93.6 [3.685]</td>
<td>111.6 [4.394]</td>
<td>11.0 MIN [.433 MIN]</td>
<td>11.0 MIN [.433 MIN]</td>
<td>86.0 [3.345]</td>
<td>130.0 [5.118]</td>
</tr>
<tr>
<td>W0000</td>
<td>93.6 [3.685]</td>
<td>—</td>
<td>—</td>
<td>22.6 [.890]</td>
<td>—</td>
<td>86.0 [3.345]</td>
</tr>
</tbody>
</table>

**COMMENTS:**

- ALL DIMENSIONS ARE SHOWN IN mm [in] AND ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED
- OPTION Wxxxx MUST BE ORDERED WITH OPTION RW151
- REDUCER IS SUPPLIED PREASSEMBLED IN ORIENTATION SHOWN, CUSTOMER MAY ROTATE INTO PREFERRED ORIENTATION AFTER RECEIPT
- WHEN (-W0000) IS SPECIFIED, COUPLER IS SUPPLIED WITH UNFINISHED SHAFT BORE AND MOTOR MOUNTING PLATE IS SUPPLIED WITH DIMENSIONS SHOWN WITHOUT MOTOR MOUNTING FASTENERS
- * Wxxxx CONFIGURED ONLINE
OPTIONS: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

Wxxxx MOTOR MOUNT CODE

Your Motor, Your Way customizable motor mounting is generated by PHD’s extensive motor database at www.config.phdinc.com. Users may select their compatible motor of choice from the pre-populated motor database. In the event the chosen motor is not in the database, they may enter necessary motor features to generate the PHD motor mount code.

The tailored motor mounting components are included with the gripper and shipped in kit form. See page 8 for -Wxxxx options and dimensions.

Step 1 - Online Actuator Sizing size.phdinc.com

- Input your application data.
- The sizing software will tell you which gripper and motor performance parameters are needed for your application.

Step 2 - Motor Selection

- Based on the performance requirements determined by online sizing, select an appropriate motor from your preferred motor manufacturer.
- Return to the online sizing software with identified motor parameters to verify motor to application compatibility.

Step 3 - Your Motor, Your Way Configurator config.phdinc.com

- Select your motor from the drop down menus or enter the necessary motor geometry.
- The generated motor mount code for the compatible motor will complete the ordering data necessary to order the gripper tailored to your specific application.
- 3D CAD models are also available.
- If a blank motor mount is desired for special motor requirements, use -W0000 to order a motor mount intended for customer modification.

MOTOR GEOMETRY

NOTES:
1) ALL DIMENSIONS ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED
2) MOTOR MOUNT IS SUPPLIED PREASSEMBLED TO MOTOR SPEED REDUCER AND INCLUDES INSTRUCTIONS AND ALL PARTS NECESSARY TO INSTALL MOTOR
OPTIONS: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

M1095 KOLLMORGEN® MOTOR

Factory-installed Kollmorgen® AKM33H-AND2CA00 motor used with a suitable Kollmorgen® motor controller and RW151 motor speed reducer provides grip forces and jaw speeds comparable to PHD’s pneumatic Series GRR Guardian® gripper. This option requires options -RW151 -W0174.

The motor may be field rotated to index location of motor connector.

Performance with M1095 Motor Option

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>FULL TRAVERSE TIME sec</th>
<th>MAXIMUM GRIP FORCE* N</th>
<th>lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGRR12-x-63 x 150</td>
<td>0.27</td>
<td>3600</td>
<td>809</td>
</tr>
<tr>
<td>EGRR12-x-63 x 200</td>
<td>0.34</td>
<td>3600</td>
<td>809</td>
</tr>
<tr>
<td>EGRR12-x-63 x 250</td>
<td>0.40</td>
<td>3600</td>
<td>809</td>
</tr>
<tr>
<td>EGRR12-x-63 x 300</td>
<td>0.46</td>
<td>3600</td>
<td>809</td>
</tr>
<tr>
<td>EGRR12-x-63 x 350</td>
<td>0.53</td>
<td>3600</td>
<td>809</td>
</tr>
</tbody>
</table>

*Grip force at zero tooling length

Contact PHD to purchase associated motor drives and cables.

ACCESSORIES:

DRIVE LINK

A single drive link couples the output of the motor speed reducer to the input socket of the gripper. The link is intended to mechanically fail reducing catastrophic damage to the gripper and motor speed reducer if maximum torque is exceeded.

Drive Link Kit

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>88157-0000</td>
<td>Used with Standard Motor Mounting Flange</td>
</tr>
<tr>
<td>88157-0018</td>
<td>Used with Oversize Motor Mounting Flange</td>
</tr>
</tbody>
</table>

Kit includes one drive link and installation instructions.
ACCESSORIES: SERIES EGRR ELECTRIC HIGH CAPACITY GRIPPER

PROXIMITY SWITCHES - EXTERNAL
This accessory provides for the external mounting of 8 or 12 mm threaded round metal sensing inductive proximity switches. Multiple switches may be mounted using multiple brackets. Proximity switches, targets, and mounting brackets are ordered separately. See the Switches and Sensors section of the main catalog for complete switch specifications.

NOTE: Target and bracket kits do not interchange with Series GRR Grippers Design 1 [5].

8 mm THREADED INDUCTIVE PROXIMITY SWITCHES

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>51422-005-02</td>
<td>NPN (Sink), 2 meter cable</td>
</tr>
<tr>
<td>51422-006-02</td>
<td>PNP (Source), 2 meter cable</td>
</tr>
</tbody>
</table>

8 mm & 12 mm THREADED INDUCTIVE PROXIMITY SWITCH TARGET KIT

CORROSION-RESISTANT

74994-33
Kit includes 1 proximity switch target and 2 target mounting screws

8 mm THREADED INDUCTIVE PROXIMITY SWITCH MOUNTING BRACKET KITS

CORROSION-RESISTANT FOR 8 mm SWITCH  CORROSION-RESISTANT FOR 12 mm SWITCH

74992-33  74993-33
Kit includes 1 proximity switch mounting bracket, 1 mounting nut, and 1 mounting screw

TARGETS AND BRACKETS MAY BE LOCATED ON BOTH SIDES OF JAWS

MOTOR ORIENTATION MAY LIMIT PROXIMITY TARGET AND BRACKET LOCATIONS

SHOWN AS 8mm PROX

4 mm HEX SIZE TARGET AND BRACKET

NOTES:
1) ALL DIMENSIONS ARE SHOWN IN mm [in] AND ARE REFERENCE ONLY UNLESS SPECIFICALLY TOLERANCED
2) DESIGNATED IS CENTERLINE OF UNIT
3) NUMBERS IN INDICATE POSITIONS

www.phdinc.com/egrr  •  (800) 624-8511
KOLLMORGEN® MOTOR CONTROLLER AND CABLE ACCESSORIES
(For Series EGRR with options RW151-W0174-M1095 package)

AKD MOTOR CONTROLLER

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PHD PART NUMBER</th>
<th>KOLLMORGEN PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKD Motor Controller 6 Amp 120/240V 1Ph No field bus</td>
<td>87543-P00606-NBAN-0000</td>
<td>AKD-P00606-NBAN-0000</td>
</tr>
<tr>
<td>AKD Motor Controller 6 Amp 120/240V 1Ph Ethernet/IP</td>
<td>87543-P00606-NBEI-0000</td>
<td>AKD-P00606-NBEI-0000</td>
</tr>
<tr>
<td>AKD Motor Controller 6 Amp 120/240V 1Ph EtherCAT</td>
<td>87543-P00606-NBEC-0000</td>
<td>AKD-P00606-NBEC-0000</td>
</tr>
<tr>
<td>AKD Motor Controller 6 Amp 120/240V 1Ph PROFINET</td>
<td>87543-P00606-NBPN-0000</td>
<td>AKD-P00606-NBPN-0000</td>
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</tbody>
</table>

HYBRID SMART FEEDBACK CABLES

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PHD PART NUMBER</th>
<th>KOLLMORGEN PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 1 meter</td>
<td>88274-1-015-001</td>
<td>CCJ-1AS-015-001-00</td>
</tr>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 3 meter</td>
<td>88274-1-015-003</td>
<td>CCJ-1AS-015-003-00</td>
</tr>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 6 meter</td>
<td>88274-1-015-006</td>
<td>CCJ-1AS-015-006-00</td>
</tr>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 9 meter</td>
<td>88274-1-015-009</td>
<td>CCJ-1AS-015-009-00</td>
</tr>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 12 meter</td>
<td>88274-1-015-012</td>
<td>CCJ-1AS-015-012-00</td>
</tr>
<tr>
<td>Smart Feedback Hybrid CCJ Series 12 Amp 120/240V 24 meter</td>
<td>88274-1-015-024</td>
<td>CCJ-1AS-015-024-00</td>
</tr>
</tbody>
</table>

SPECIAL REQUIREMENTS

Capabilities

- Dedicated application assistance
- Fast delivery and competitive pricing
- Separate unique solutions engineering and manufacturing areas dedicated to our customers, ensuring prompt quotes and dependable delivery
- Over 30,000 unique solutions provided and over 100,000 quotes in our database
- Submit your request for a quote and an MDN representative will contact you
- No minimum quantities are required
- CAD files available prior to ordering
- Geared towards short-run requests
- All units receive an “ML” number when ordered. This number, along with all specifications, is kept on permanent record at PHD for future reference and reorders.

www.phdinc.com/unlimited/unique_solutions/