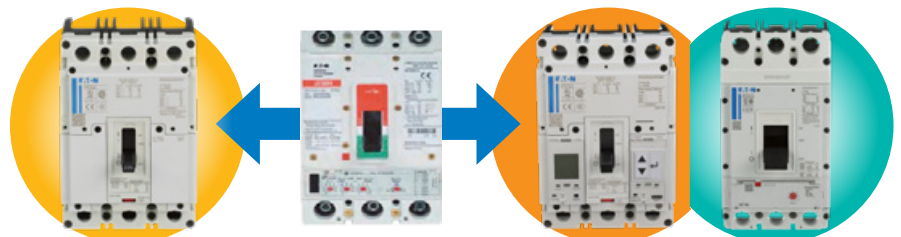


# Conversion to Power Defense is possible

With the upcoming rationalization of the JD/JG breakers by 2023, it's important to remember that conversion to Power Defense is possible. The scenarios below can serve as a guide to help convert to Power Defense and which option works best for your needs.

<p>Scenario <b>1</b></p>	<p><b>The use of thermal-mag JD/JG below 250 A and does not require adjustable magnetic pick-up.</b></p> <p>This is the easiest conversion to Power Defense. The PDG2 can be used for thermal-mag applications up to 225 A and would offer both a size and cost savings over the JD/JG.</p>
<p>Scenario <b>2</b></p>	<p><b>The use of thermal-mag JD/JG below 250 A, but requires adjustable magnetic pick-up.</b></p> <p>The PD2 thermal mag breaker is "fixed-fixed," which means neither the thermal overload protection nor the magnetic short circuit pickup settings are adjustable. To match the adjustable magnetic short circuit pickup settings that the JD/JG offers, consider the PD2 w/PXR 10 trip unit for advanced adjustability and a size advantage over the JD/JG.</p>
<p>Scenario <b>3</b></p>	<p><b>The use of thermal-mag JD/JG at 250 A.</b></p> <p>The standard PD2 maxes out at 225 A and cannot be run at 250 A. As a standard industry practice breakers are listed to run continuously at 80% of the rated current (example a 100 A standard breaker can be run continuously at up to 80 A). Applications running a JD/JG at 250 A require a breaker than can handle <math>80\% \times 250 \text{ A} = 200 \text{ A}</math> continuously. There are two options:</p> <ul style="list-style-type: none"><li>a) <b>The standard PD3 at 250 A</b> <b>Advantage:</b> Already includes adjustable magnetic pickup settings <b>Disadvantage:</b> Larger in size; not as cost effective as the PD2</li><li>b) <b>The 100% rated PDF2 at 225 A</b> <b>Advantage:</b> Smaller size; additional features (must be electronic) <b>Disadvantage:</b> Possible preference of thermal magnetic trip units over electronic</li></ul>
<p>Scenario <b>4</b></p>	<p><b>The use of a certain JD/JG accessory that we may or may not have for PD2.</b></p> <p>There are a handful of applications involving a JD/JG niche accessory that does not have a direct Power Defense equivalent. In some cases the features of the PXR trip units can fill a function gap, in others it may be required to size up to get the most similar application. Please see the most recent version of the V4-T2 catalog for released Power Defense accessory options or contact your Eaton representative for assistance in these instances.</p>

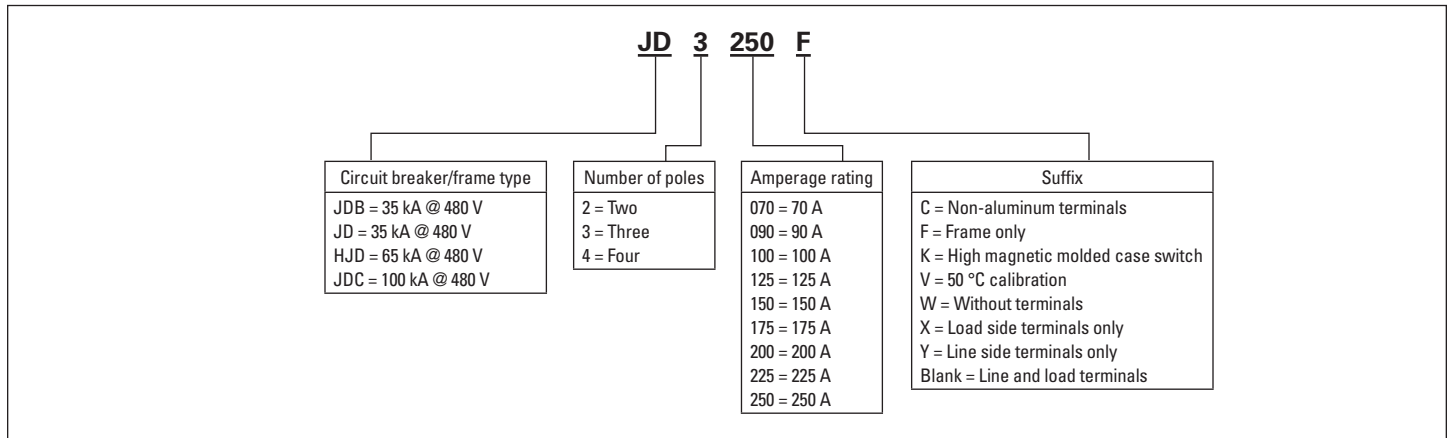


225 A and below  
fixed/fixed TMTU

250 A or  
fixed/adjustable

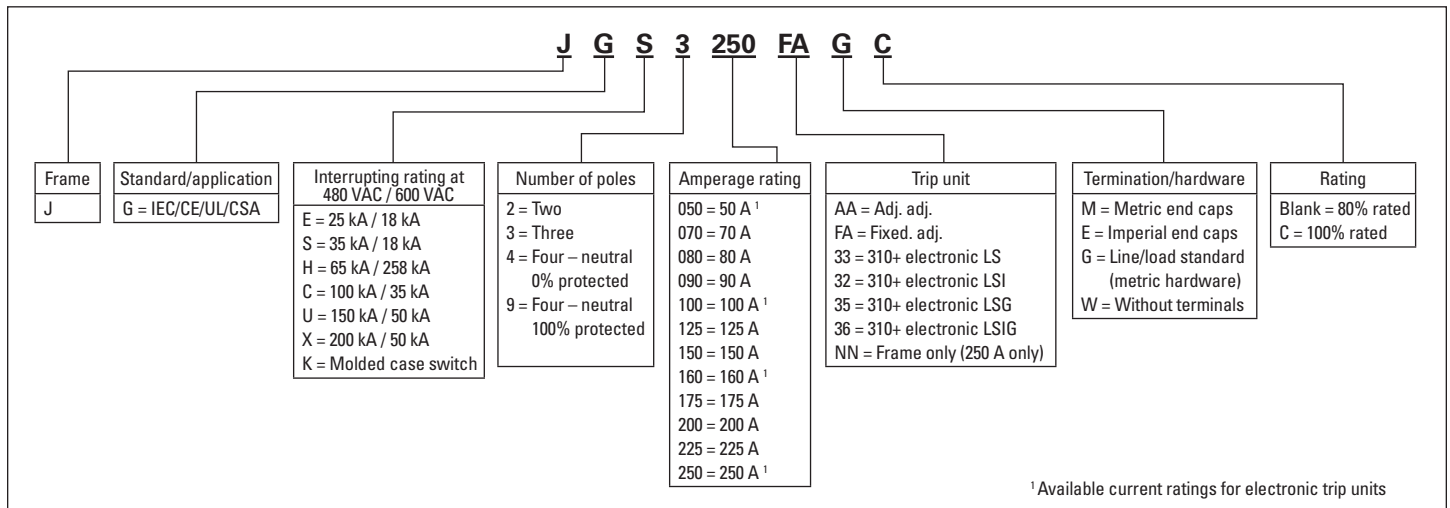
## JD catalog tree

### Series C — JD frame (70 – 250 A)



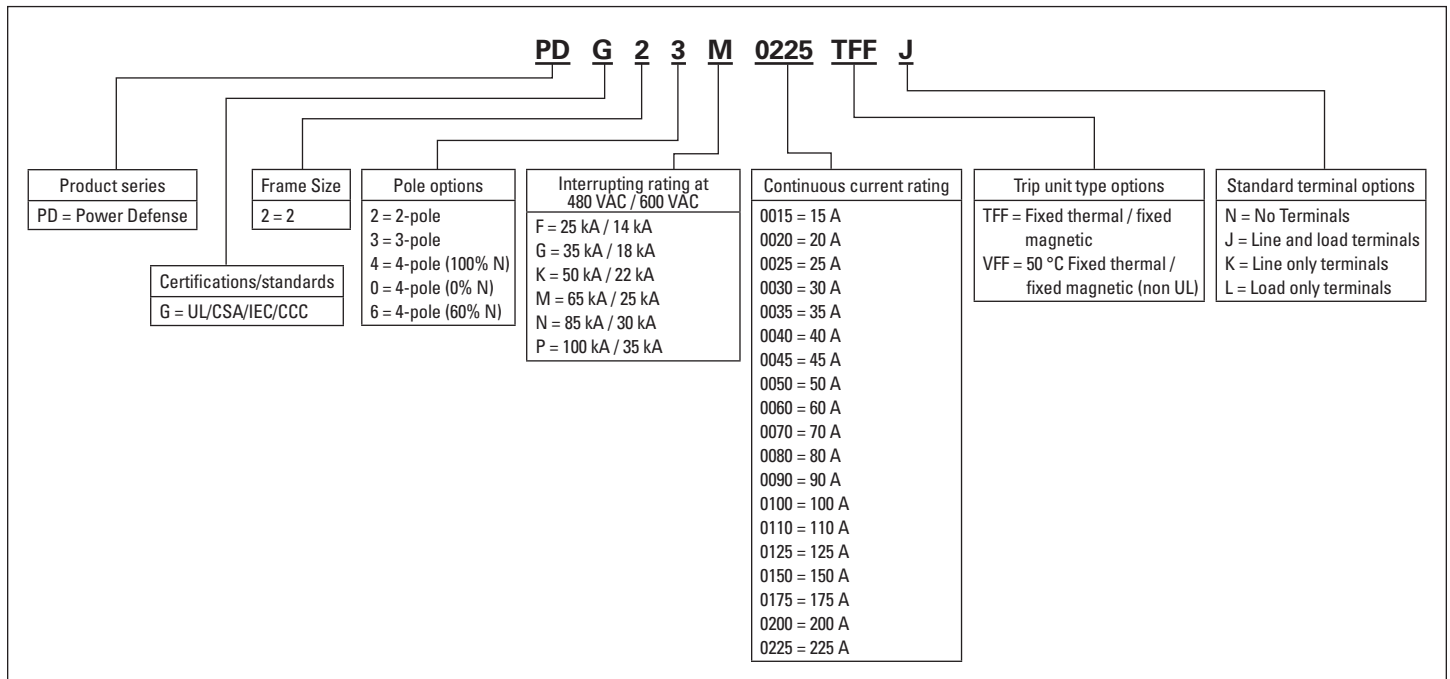
## JG catalog tree

### Series G — JG frame (50 – 250 A)



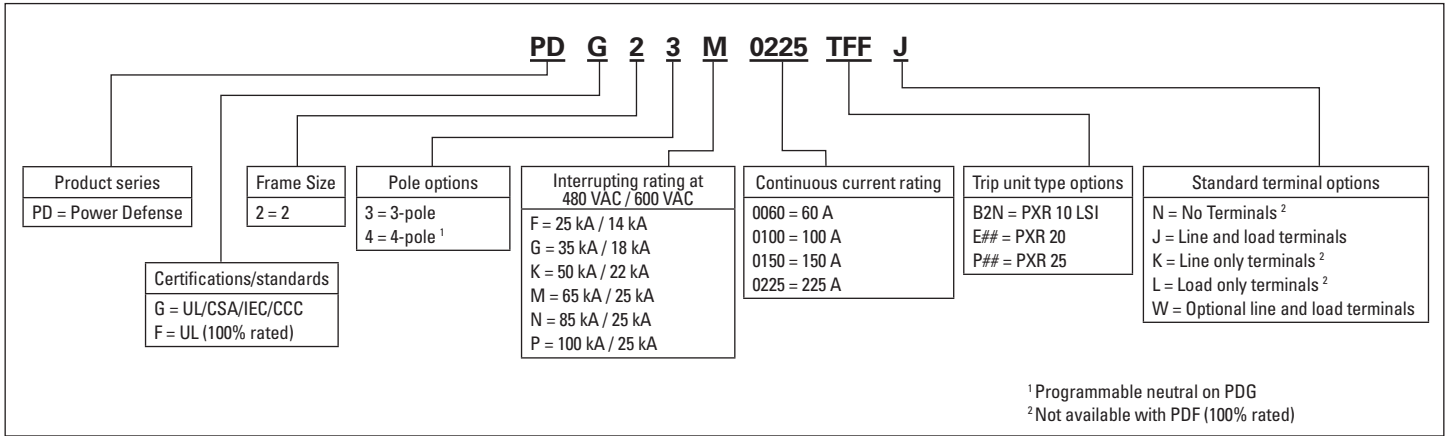
## Power Defense frame 2 TM

### Power Defense — frame 2 (15 – 125 A) with thermal magnetic trip units



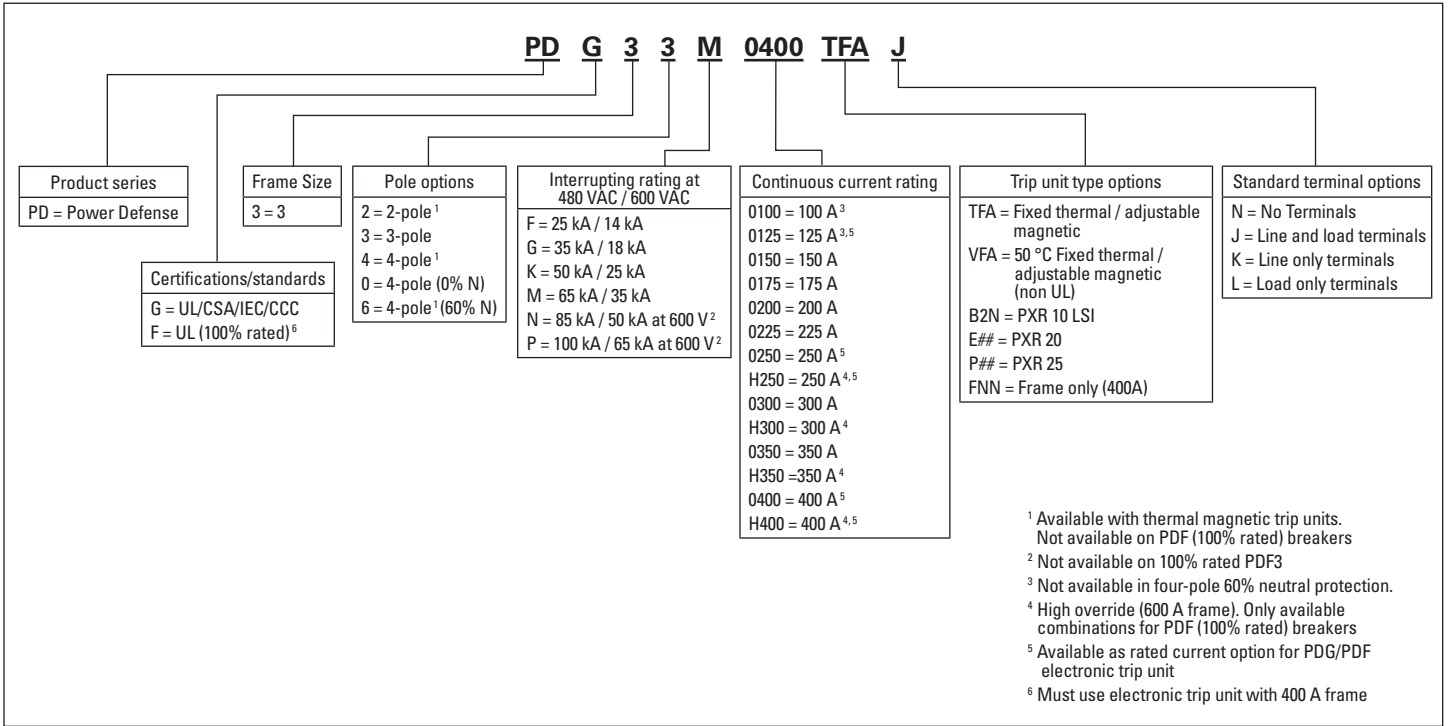
## Power Defense frame 2 ETU

### Power Defense — frame 2 (15 – 125 A) with electronic trip units



## Power Defense frame 3 TM and ETU

### Power Defense — frame 3 (45 – 400 A) with thermal magnetic and electronic trip units



For a specific JD/JG – Power Defense part number conversion please:

- Contact the TRC at 877.386.2271, option 2, option 2, option 2
- Use Eaton's cross reference tool:  
[Competitor and Eaton products cross-reference search](#)

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Printed in USA  
Publication No. SA012020EN / GG  
March 2023

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