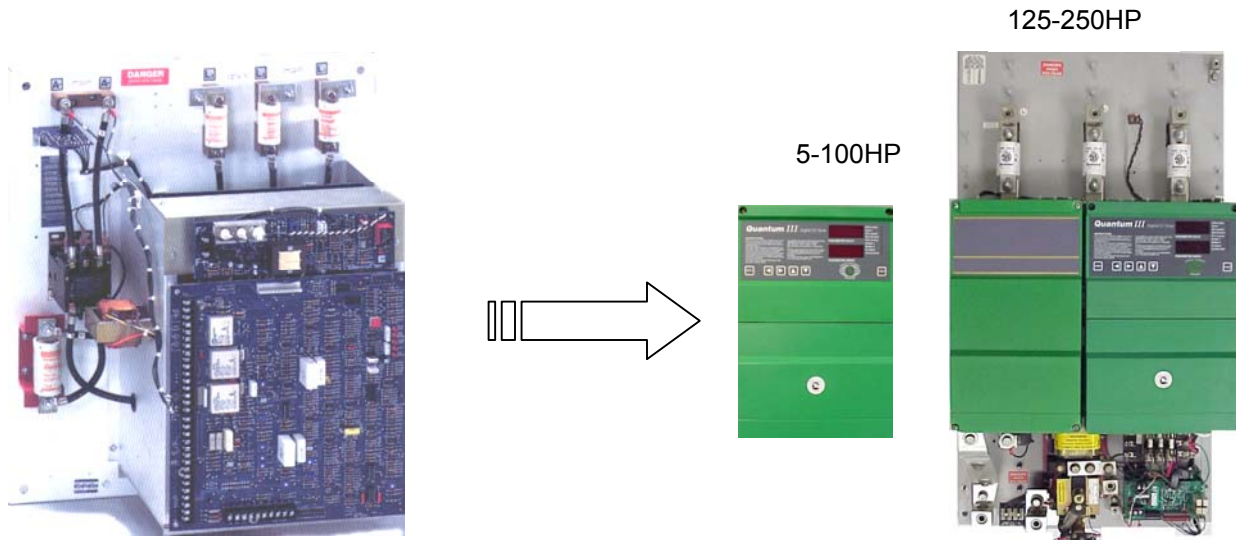


The Application Note is pertinent to the Quantum III Family

## A Replacement Solution for ES-2300RG Regenerative DC Drives

The ES2300RG series was a popular 3-phase analog regenerative (4-quadrant) DC motor speed control manufactured by Emerson Industrial Controls from approximately 1985 to 1992. It was available in 4 models that could control DC motors from 5HP to 250HP. The digital Quantum III series of DC motor drives provides a very good replacement solution in that it closely matches and in most cases exceeds performance and features of the older series drive. Below is a cross-reference to the new drive as well as mechanical dimension comparison.



Being Digital, the Quantum III series has a Windows Software program to permit easy setup, recording the setup file and diagnosis. This software is available free for examination and use at:

<http://www.emersonct.com/pdProducts/downloads/software.asp>

To obtain a complete overview of the Quantum III and its specifications at:

<http://www.emersonct.com/pdProducts/downloads/literaturePDF/pdCatalog2003/QUANTUM.pdf>

To obtain assistance with selecting a Quantum III consult the following Application Note:

<http://www.emersonct.com/pdProducts/downloads/appNotesPDF/ctan199.pdf>

## Dimensional Comparisons

ES2300RG Model Dimension (WxHxD)	ES2300RG P/N	Input Voltage	Max Rated Output Amps	Quantum III P/N (max amps) Dimension (WxHxD)
<b>I</b> (16x24x14)	2300-8100	240/480	51	<b>9500-8602 (38.2)</b> <b>9500-8603 (55.4)</b> (10x15x10.5)
<b>II</b> (21x24x14)	2300-8101	240/480	102	<b>9500-8605 (105.5)</b> (10x15x10.5)
	2300-8101	240/480	126	<b>9500-8606 (172)</b> (10x15x10.5)
<b>III</b> (21x24x14)	2300-8102	240/480	170	<b>9500-8606 (172)</b> (10x15x10.5)
	2300-8102	240/480	212	<b>9500-8607 (255)</b> (20.3x35x12)
<b>IV</b> (27x21x14)	2300-8103	240/480	255	<b>9500-8607 (255)</b> (20.3x35x12)
	2300-8103	240/480	340	<b>9500-8608 (338)</b> (20.3x35x12)
	2300-8103	240/480	425	<b>9500-8609 (428)</b> (20.3x35x12)

Each model of the ES2300RG drives can operate a number of horsepower ratings. To select the proper replacement Quantum III drive, acquire the motor full load current rating from the motor nameplate and select the Quantum part number whose current rating (shown in parentheses next to the part number) meets or exceeds the rating.

**ANY QUESTIONS / CONCERNS ??**

**Contact Control Techniques Technical Support @ 1-800-367-8067**

# Quantum III AC Logic Diagram

