



**SUBJECT: Field Module Selection for Quattro™ DC**

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Magnetek offers two version of the Field Module for Quattro™ DC. This document details the appropriate use of each module.

- The Low Voltage Field Module is recommended for applications with:
  - o 380-480 VAC 3-phase input to drive or 200-240 VAC 3-phase input to drive when Field Current is less than 20 Amps
  - o Lower peak to peak and ground voltage on field when using higher input voltage
- The Standard Field Module is recommended for applications with:
  - o 200-480 VAC 3-phase input to drive where insulation stress is not a factor
  - o Applications that exceed output voltage/current rating of Low Voltage Field Module<sup>1</sup>

**Low Voltage Field Module Specifications**

**Input Power**

- Powered from the DC Bus

**Standards**

- CSA

**Output Power<sup>1</sup>**

- 20 Amps at 250 Volts<sup>2</sup>
- 40 Amps at 125 Volts<sup>2</sup>

**Design Features**

- 40kHz switching frequency
- Low Voltage to ground on field winding insulation
- Jumper on Field Module Board to determine ampere range (see page 3 for more information)

**Standard Field Module Specifications**

**Input Power**

- Powered from the DC Bus

**Standards**

- CSA

**Output Power**

- Up to 40 Amps

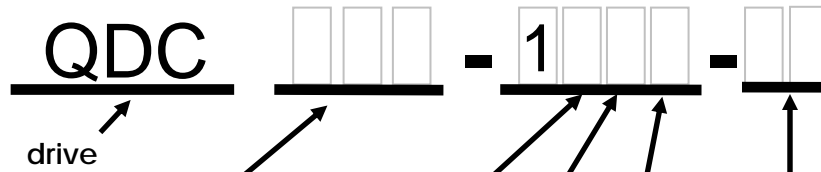
**Design Features**

- Settable switching frequency, FLD CARRIER FRQ (A4)
- Optional Field Filter helps with high voltage peak to peak on field winding insulation

Note 1: For table of Low Voltage Field Module Power Capabilities, see page 3  
Note 2: Based on 460VAC 3-phase input to drive



**Drive Option Part Numbers**



**output current rating**

- 125 = 125A output current
- 150 = 150A output current
- 200 = 200A output current
- 250 = 250A output current
- 300 = 300A output current

**enclosure options**

- 6 = no customer I/O panel
- 7 = customer I/O panel

**auto transformer options**

- 0 = no Auto Transformer included
- 3 = 480VAC:380VAC transformer 60Hz
- 4 = 575VAC:380VAC transformer 60Hz
- 5 = 208VAC:380VAC transformer 60Hz
- 6 = 240VAC:380VAC transformer 60Hz
- 7 = 208VAC:480VAC transformer 60Hz
- 8 = 240VAC:480VAC transformer 60Hz
- 9 = 380VAC:480VAC transformer 50/60Hz
- A = 400VAC:480VAC transformer 50/60Hz
- B = 415VAC:480VAC transformer 50/60Hz
- C = 575VAC:480VAC transformer 60Hz

**control transformer options**

- 1 = no control transformer included
- 3 = 208VAC input to control transformer
- 4 = 380VAC input to control transformer
- 5 = 400VAC input to control transformer
- 6 = 416VAC input to control transformer
- 7 = 440VAC input to control transformer
- 8 = 480VAC input to control transformer

**options**

**high voltage field module**

- 00 = No Operator, Single Contactor, No Filters, Std Field Supply
- 01 = Operator, Single Contactor, No Filters, Std Field Supply
- 02 = No Operator, Dual Contactor, No Filters, Std Field Supply
- 03 = Operator, Dual Contactor, No Filters, Std Field Supply
- 04 = No Operator, Single Contactor, Arm Filter, Std Field Supply
- 05 = Operator, Single Contactor, Arm Filter, Std Field Supply
- 06 = No Operator, Dual Contactor, Arm Filter, Std Field Supply
- 07 = Operator, Dual Contactor, Arm Filter, Std Field Supply
- 08 = No Operator, Single Contactor, Field Filter, Std Field Supply
- 09 = Operator, Single Contactor, Field Filter, Std Field Supply
- 0A = No Operator, Dual Contactor, Field Filter, Std Field Supply
- 0B = Operator, Dual Contactor, Field Filter, Std Field Supply
- 0C = No Operator, Single Contactor, Field Filter, Arm Filter, Std Field Supply
- 0D = Operator, Single Contactor, Field Filter, Arm Filter, Std Field Supply
- 0E = No Operator, Dual Contactor, Field Filter, Arm Filter, Std Field Supply
- 0F = Operator, Dual Contactor, Field Filter, Arm Filter, Std Field Supply

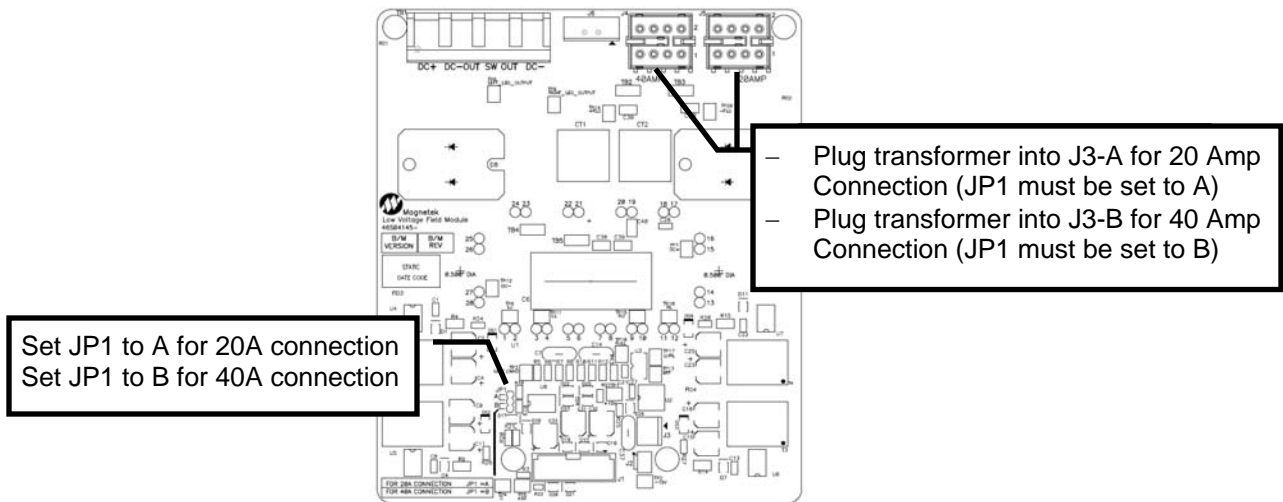
**low voltage field module**

- 10 = No Operator, Single Contactor, No Filters, LV Field Supply
- 11 = Operator, Single Contactor, No Filters, LV Field Supply
- 12 = No Operator, Dual Contactor, No Filters, LV Field Supply
- 13 = Operator, Dual Contactor, No Filters, LV Field Supply
- 14 = No Operator, Single Contactor, Arm Filter, LV Field Supply
- 15 = Operator, Single Contactor, Arm Filter, LV Field Supply
- 16 = No Operator, Dual Contactor, Arm Filter, LV Field Supply
- 17 = Operator, Dual Contactor, Arm Filter, LV Field Supply



### Low Voltage Field Module Option Board

Due to the expanded options on the Low Voltage Field Module, 20 amps and 40 amps, slight setup is required. If the application is below the 20 Amp limitation, verify the connector from the transformer is connected to J3-A, and the jumper on JP1 is connected to A. If the application requires the 40 Amps, verify the connector from the transformer is connected to J3-B and the JP1 connected to B.



### Low Voltage Field Module Output Ratings based on Input Voltage

Input 3-phase line-line Volts	Output Current Rating	Output Voltage Rating <sup>3</sup>
200	20A	104VDC
220	20A	114VDC
230	20A	118VDC
240	20A	123VDC
380	20A	190VDC
	40A	95VDC
400	20A	199VDC
	40A	100VDC
420	20A	208VDC
	40A	104VDC
440	20A	217VDC
	40A	109VDC
460	20A	127VDC
	40A	113VDC
480	20A	236VDC
	40A	118VDC

Note 3: Based on DC BUS V BOOST (A5) = 30 VDC