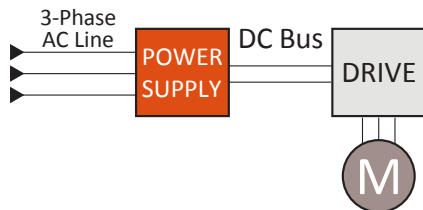


3 - Phase Power Supply



Common Bus Solutions



Industry Applications

12 and 18 Pulse Converters

- IEEE 519 compliance
- Pumps
- Fans
- HVAC
- Water/wastewater

Shared DC Bus

- Servo motion control systems
- Carbon and synthetic fiber production
- Spinning lines
- Conveyors
- Cranes and gantries



BONITRON

M3713 Series

The Bonitron M3713 series is a non-regenerative AC to DC rectifier that can serve as the main power supply for your common bus DC system.

Drive systems are more commonly being configured with a common DC bus; for good reason. Common DC bus configurations create advantages including:

- Cost savings
- Greater efficiency
- More versatile system design

One method of creating a common bus systems is the use of a rectifier that supplies DC power to all of the drives instead of individual rectifiers for each drive. The Bonitron M3713 is the ideal solution for this method.

Multiple M3713 Power Supplies can be used in parallel for high power applications, as well as for redundancy and increased process reliability.

The M3713 can also be used as a building block for 12 and 18 pulse systems using standard VFDs. These systems mitigate harmonics and other power quality issues. **Multiple M3713 units used with a phase shifting transformer allows standard drives to meet IEEE 519 compliance.**

Product Highlights

- Serves as main power supply
- Allows standard drives to meet IEEE 519 compliance with proper configuration
- Available with or without precharge
- Diagnostic indicators



www.bonitron.com



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Specifications

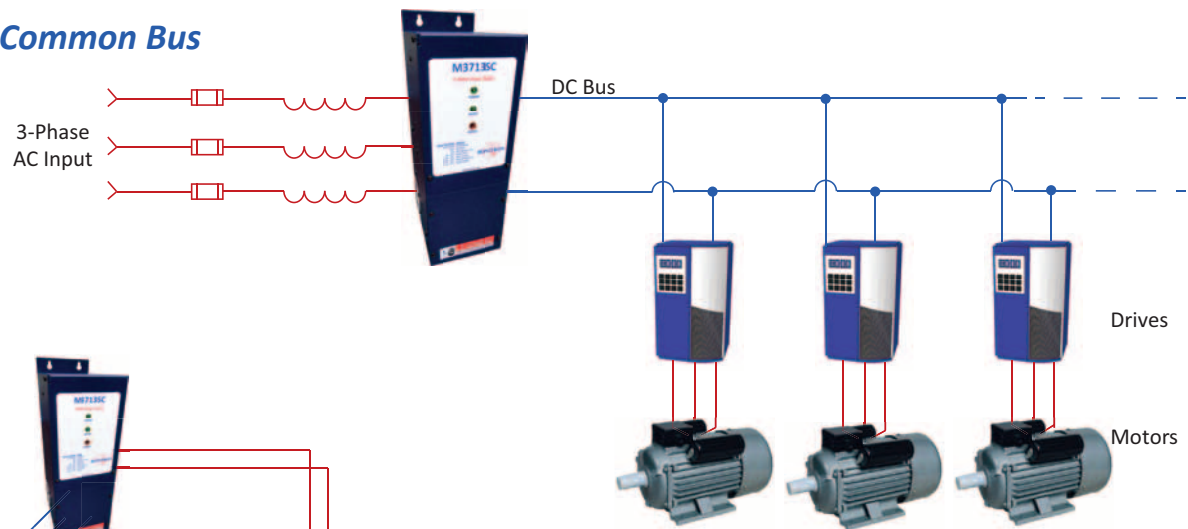
M3713SC

M3713DM

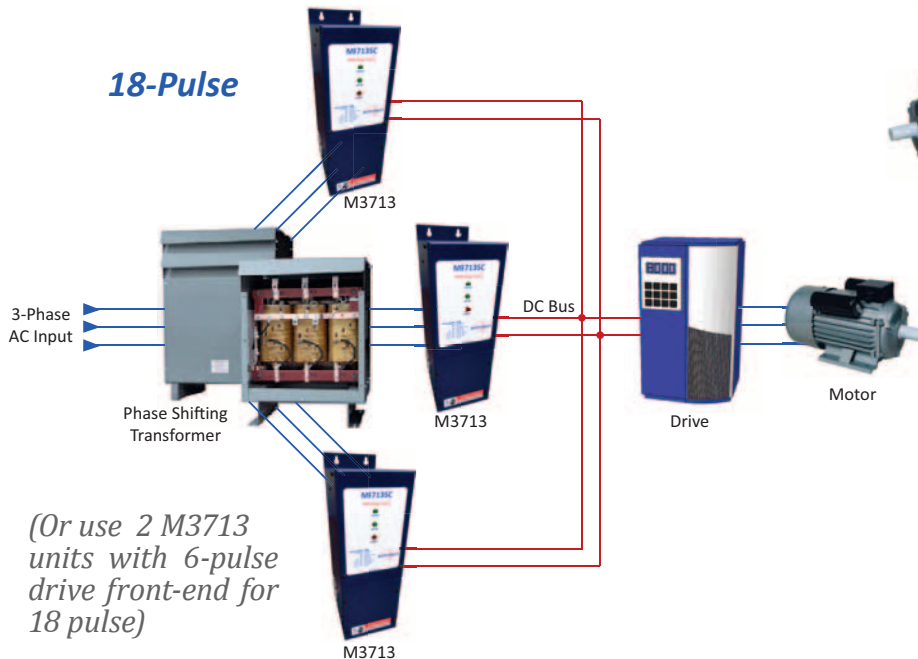
230-240 VAC, 460-480 VAC, 575-600 VAC	Input Voltage	230-240 VAC, 460-480 VAC, 575-600 VAC
150% Full Load Rating for 60 seconds	Intermittent duty Limit	150% Full Load Rating for 60 seconds
20% Full Load Rating	Precharge Ramp Current Limit	N/A
175% Full Load Rating	Overload Limit	N/A
24V+ Sinking Precharge Enable Run Enable	Control Inputs	N/A
250VAC, 120mA Max Precharge Complete Ready	Control Outputs	250VAC @ 120mA 110VAC @ 500mA Overtemp (NC)
Power, Ready, Status	Indicators	Power

Configurations

Common Bus

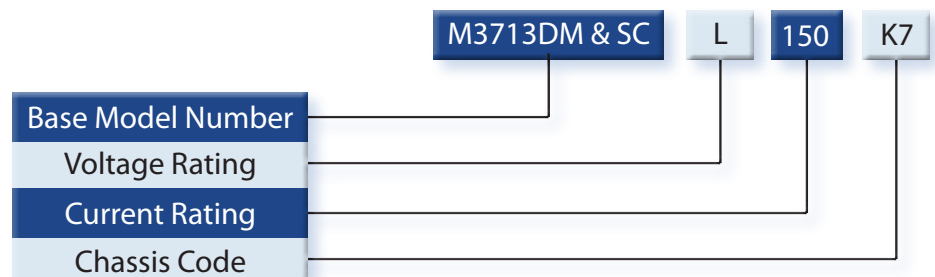


18-Pulse



(Or use 2 M3713 units with 6-pulse drive front-end for 18 pulse)

Model Number Breakdown



Model Number Selection

Up to 3 units can be in parallel for higher current requirements.

	Power (Nominal)	Precharge	Model Number	Output Current	Dimensions (H x W x D)	
208 - 240 VAC						
	7.5 HP	NO YES	M3713DM-L030-B5 M3713SC-L030-B5	30 A	17.75" x 5.50" x 7.80"	
	20 HP	NO YES	M3713DM-L075-B5 M3713SC-L075-B5	75 A	17.75" x 5.50" x 7.80"	
	50 HP	NO YES	M3713DM-L150-K7 M3713SC-L150-K7	150 A	20.00" x 7.12" x 10.35"	
	75 HP	NO YES	M3713DM-L225-K7 M3713SC-L225-K7	225 A	20.00" x 7.12" x 10.35"	
	125 HP	NO YES	M3713DM-L375-K10 M3713SC-L375-K10	375	20.00" x 10.00" x 10.50"	

	Power (Nominal)	Precharge	Model Number	Output Current	Dimensions (H x W x D)	
460 - 480 VAC						
	15 HP	NO YES	M3713DM-H030-B5 M3713SC-H030-B5	30 A	17.75" x 5.50" x 7.80"	
	40 HP	NO YES	M3713DM-H075-B5 M3713SC-H075-B5	75 A	17.75" x 5.50" x 7.80"	
	100 HP	NO YES	M3713DM-H150-K7 M3713SC-H150-K7	150 A	20.00" x 7.12" x 10.35"	
	150 HP	NO YES	M3713DM-H225-K7 M3713SC-H225-K7	225 A	20.00" x 7.12" x 10.35"	
	250 HP	NO YES	M3713DM-H375-K10 M3713SC-H375-K10	375 A	20.00" x 10.00" x 10.50"	

	Power (Nominal)	Precharge	Model Number	Output Current	Dimensions (H x W x D)	
575 - 600 VAC						
	20 HP	NO YES	M3713DM-C030-B5 M3713SC-C030-B5	30 A	17.75" x 5.50" x 7.80"	
	50 HP	NO YES	M3713DM-C075-B5 M3713SC-C075-B5	75 A	17.75" x 5.50" x 7.80"	
	125 HP	NO YES	M3713DM-C150-K7 M3713SC-C150-K7	150 A	20.00" x 7.12" x 10.35"	
	175 HP	NO YES	M3713DM-C225-K7 M3713SC-C225-K7	225 A	20.00" x 7.12" x 10.35"	
	300 HP	NO YES	M3713DM-C375-K10 M3713SC-C375-K10	375 A	20.00" x 10.00" x 10.50"	



12 & 18 Pulse Solutions

Note: 6-pulse drive front-end can be used in place of one Bonitron M3713. Contact us for more information.

Model Number	6-PULSE (One Unit)		12-PULSE (Two Units)		18-PULSE (Three Units)	
	Nominal Drive HP	DC Output Current (Amps)	Nominal Drive HP	DC Output Current (Total Amps)	Nominal Drive HP	DC Output Current (Total Amps)
230 - 240VAC						
M3713SC-L30-B5	7.5	30	12.5	55	20	80
M3713SC-L75-B5	20	75	35	135	50	200
M3713SC-L150-K7	50	150	90	270	135	400
M3713SC-L225-K7	75	225	135	405	200	600
M3713SC-L375-K10	125	375	225	675	335	1000
460 - 480VAC						
M3713SC-H30-B5	15	30	25	55	40	80
M3713SC-H75-B5	40	75	70	135	100	200
M3713SC-H150-K7	100	150	180	270	270	400
M3713SC-H225-K7	150	225	270	405	400	600
M3713SC-H375-K10	250	375	450	675	675	1000

Additional Common Bus Solutions

Single Phase Power Supply

M3712



- 230 - 480VAC
- Power 3-phase drives from a single phase source
- No need to oversize/derate 3-phase drive
- Ideal for remote applications

Common Bus Snubber

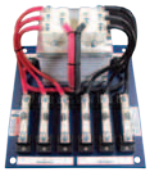
M3612RC



- Aids in protecting attached drives and power supplies
- Limits spikes and ringing in DC bus systems caused by:
 - Inverter switching
 - Rectification noise
 - Bus reactance

Common Bus Sharing Diodes

M3345CBM



- Prevents circulating currents in parallel bridges
- Allows the use of one Regen unit or Transistor with multiple drives
- Up to 6 connections (parallel for additional connections or higher ratings)

Isolation Diodes

M3460D



- Isolate drives from each other while establishing a shared, common DC bus
- Diode isolation aids in protecting individual drives
- Up to 6 connections (parallel for additional connections or higher ratings)

Uninterruptible Power for Drives (UPD)

S3460 and S3534 Series



- Protect critical processes from power sags and outages
- Reduce production equipment damage
- Maximize uptime and increase profit
- Various sizes and durations available

Line Regens

M3545 & M3645



- Return regenerative energy to AC line
- No resistor needed
- 208 - 600VAC
- Up to 150A per unit

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