

CONCEPTO DEL CONTROLADOR DE VELOCIDAD

B. ESPECIFICACIONES DEL CONTROLADOR DE VELOCIDAD

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TABLE 1 - CATALOG NO. AND VOLTAGE RATINGS

Catalog Number	AC Line Voltage VAC-50/60 HZ	Motor Armature Voltage (VDC)
BC138	115	90 - 100
BC139	230	180

TABLE 2 - ELECTRICAL RATINGS

Casing Number	Input Line Voltage (VAC - 50/60 HZ)	Armature Voltage (VDC)	Maximum AC Load Current (RMS AMPS)	Maximum DC Load Current (DC Amps)	Maximum Power HP (KW)
BC138	115	0 - 100	5.0	3.8	1/3 (.25)
BC139	230	180	5.0	3.5	3/4 (.56)

TABLE 3 - GENERAL PERFORMANCE SPECIFICATIONS

Speed Range (Ratio)	50:1*	Decel. Time Range (Full - 0 Speed) (Secs.)	0.2 - 10
Load Regulation - Armature Feedback (0 - Full Load, 50:1 Speed Range) (% Base Speed)	1**	Min. Speed Trimpot Range (% Full Speed)	0 - 30*
Line Voltage Regulation (at Full Load, ± 15% Line Variation) (% Base Speed)	3**	Max. Speed Trimpot Range (% Full Speed)	90 - 110*
Control Linearity (% Speed Vs. Dial Rotation)	2	IR Comp. Trimpot Range (at Specified Full Load) (Volts)	0 - 24
CU/Torque Range (% Full Load)	0 - 200	Maximum Allowable Ambient Temperature at Full Rating (°C/°F)	50/122
Accel Time Range (0 - Full Speed) (Secs.)	0.2 - 10		

* Control provides 50:1 operating range with a DC motor. Constant torque speed range is typically 20:1. Consult motor manufacturer for data.

** Performance is for SCR rated PM motors only. Lower performance can be expected with other motor types. Factory wiring is for 3% load regulation. To obtain superior regulation, see sec. VII F, p. 16.

TABLE 4. FUSE SELECTION CHART

90 VDC Motor	180 VDC Motor	APPROX. DC Motor Current (amps)	Armature Fuse Rating (AC amps)
1/100	1/50	0.1	2/10
1/50	1/25	0.2	3/10
1/30	1/15	0.3	1/2
1/20	1/10	0.5	3/4
1/15	1/8	0.7	1
1/10	1/5	1.0	1 1/8
1/8	1/4	1.3	2
1/6	1/3	1.7	3
1/4	1/2	2.5	4
1/3	3/4	3.3	5

Note: Specific application may require a different fuse value than indicated. This is based on several factors such as ambient temperatures, duty cycle, motor form factor and CL setpoint.

TABLE 5. PLUG-IN HORSEPOWER RESISTOR[®] CHART⁽¹⁾

Motor Horsepower [®]		APPROX. Motor Current (DC Amps)	Plug-in Horsepower Resistor [®] Value (Ohms)	Baldor Catalog No.
Armature Voltage 90 VDC	Armature Voltage 180 VDC			
1/100	1/50	.1	1.0	BR1000
1/50	1/25	.2	.51	BR0510
1/30, 1/25	1/15	.35	.35	BR0350
1/20	1/10	.5	.25	BR0250
1/15, 1/12	1/8	.8	.18	BR0180
1/10, 1/8, 1/6	1/4	1.3	.1	BR0101
1/4	1/2	2.3	.05	BR0050
1/3	3/4	3.3	.035	BR0035

Notes: (1) Motor horsepower and armature current must be specified in order to select correct Plug-in Horsepower Resistor[®].
 (2) For motor horsepower not indicated use next larger HP rating of Plug-in Horsepower Resistor[®].