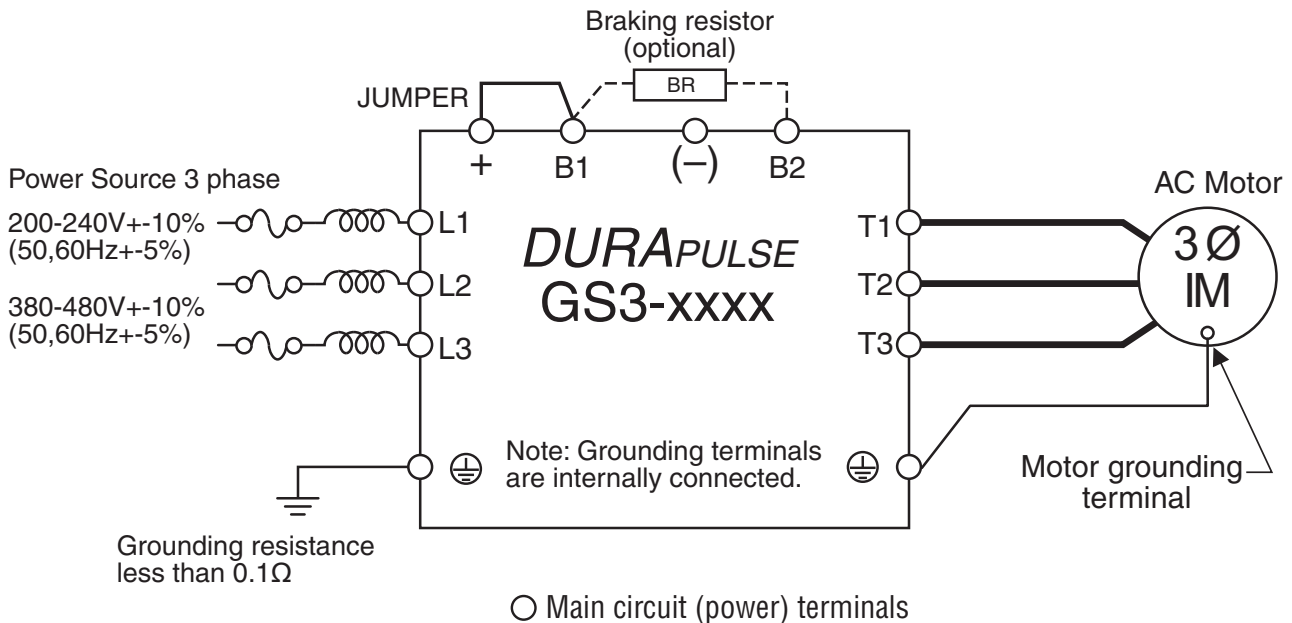
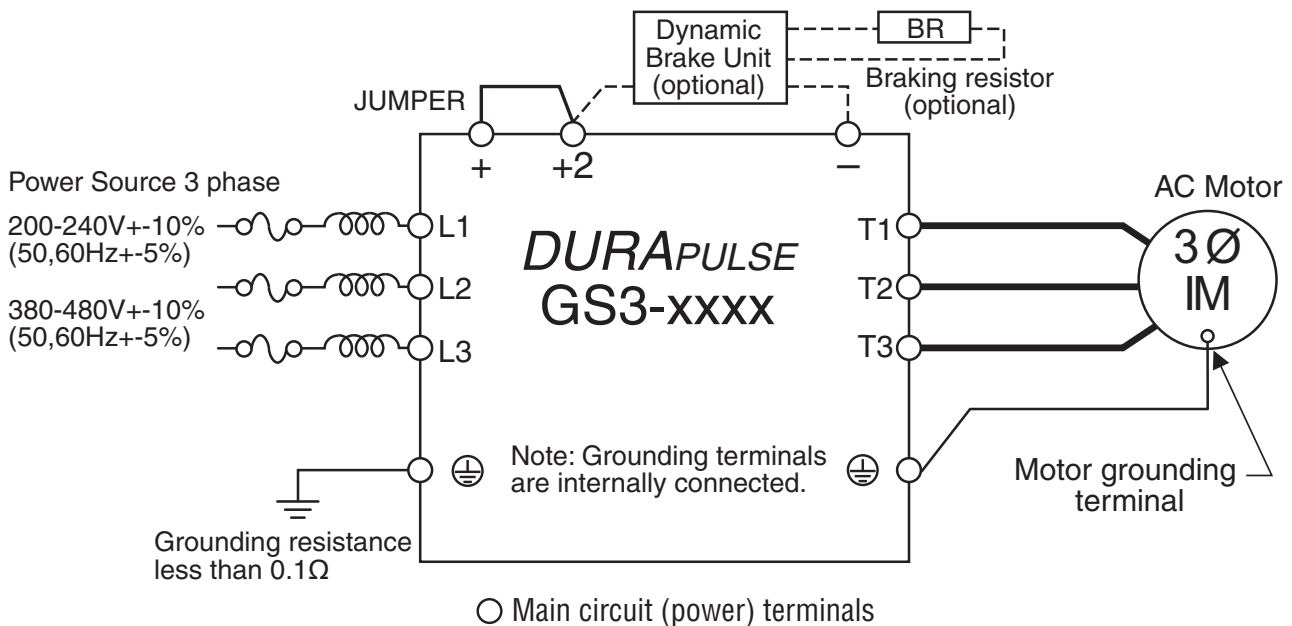


POWER WIRING DIAGRAM FOR DRIVES UNDER 20HP

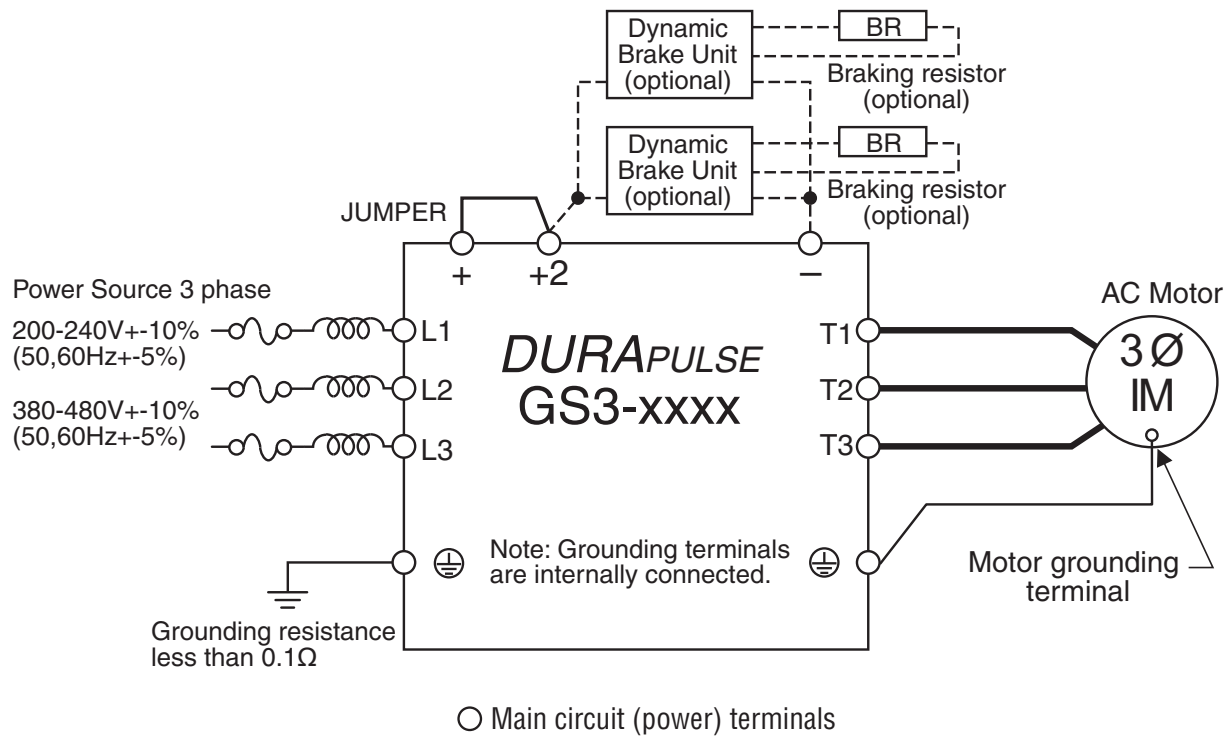


POWER WIRING DIAGRAM: 20-30HP(230VAC) & 20-60HP(460VAC)

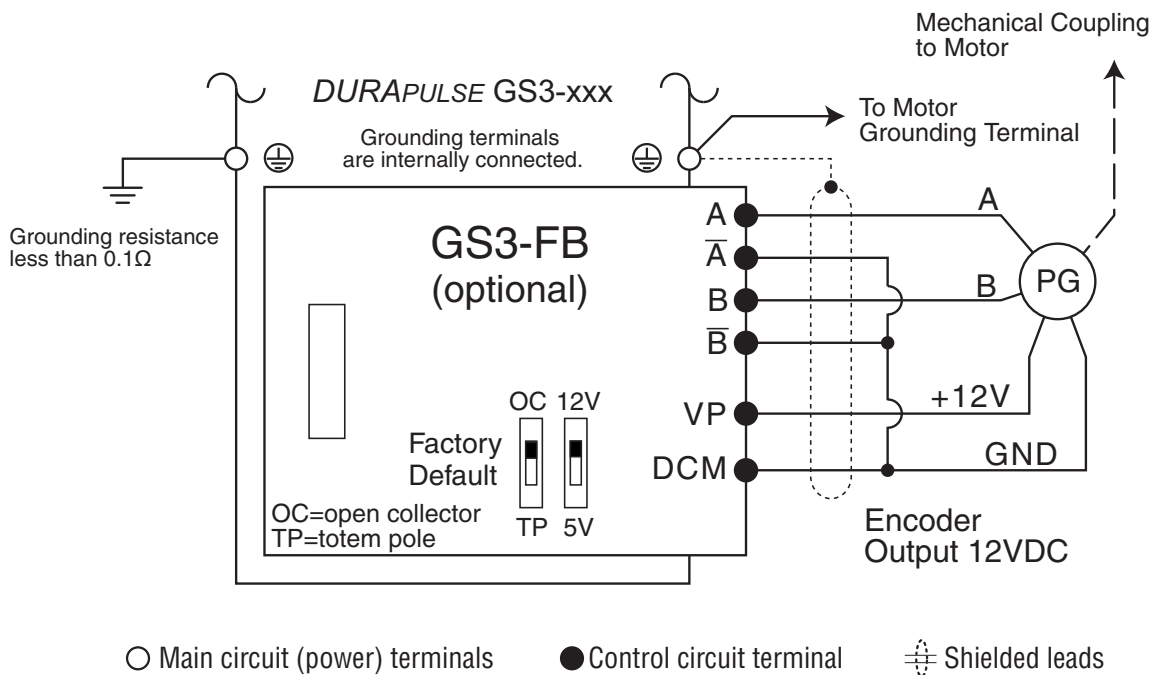


"3Ø IM" denotes three phase induction motor.

POWER WIRING DIAGRAM: 40-50HP(230VAC) & 75-100HP(460VAC)

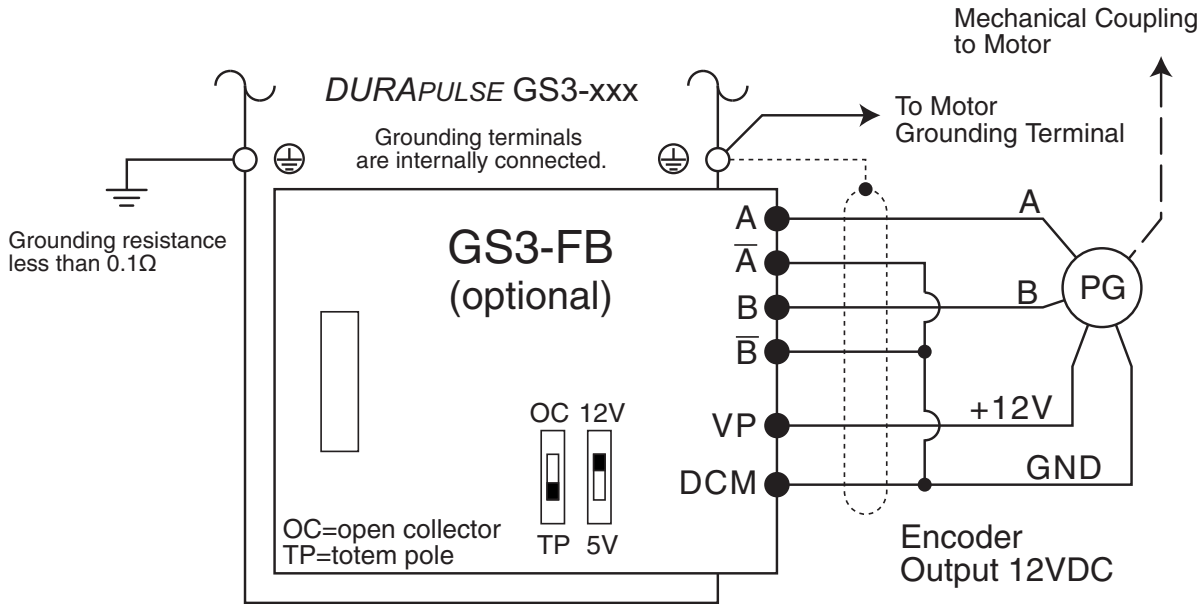


GS3-FB - WIRING DIAGRAM - OPEN COLLECTOR TYPE ENCODER

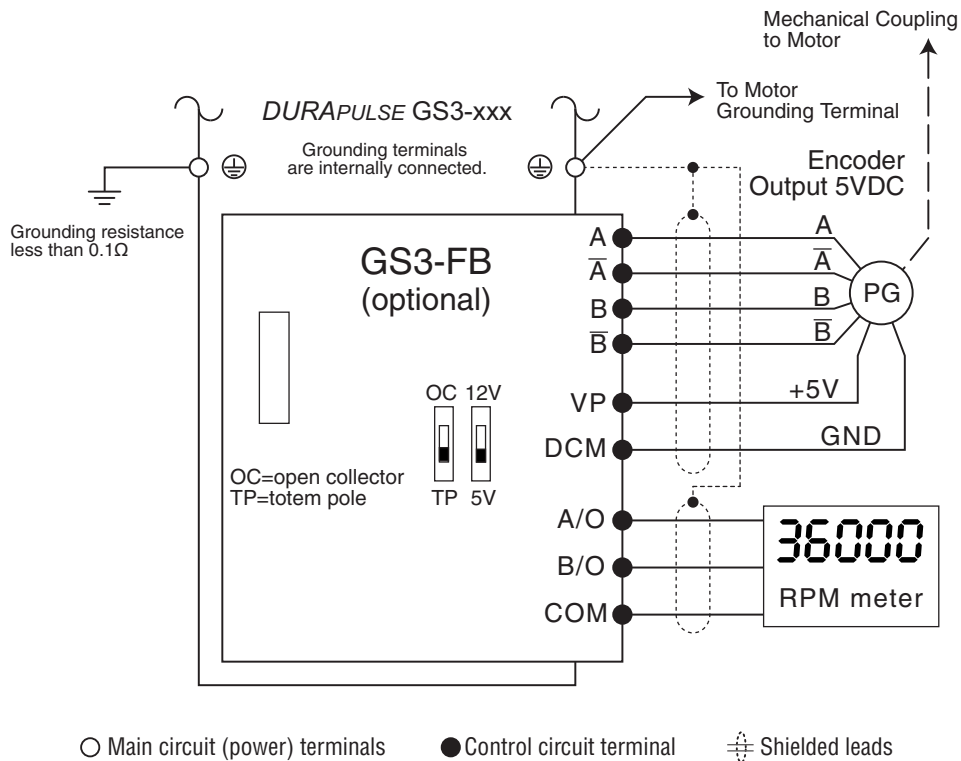


"3Ø IM" denotes three phase induction motor.
"PG" denotes encoder pulse generator.

GS3-FB - WIRING DIAGRAM - OUTPUT VOLTAGE OR COMPLIMENTARY TYPE ENCODER

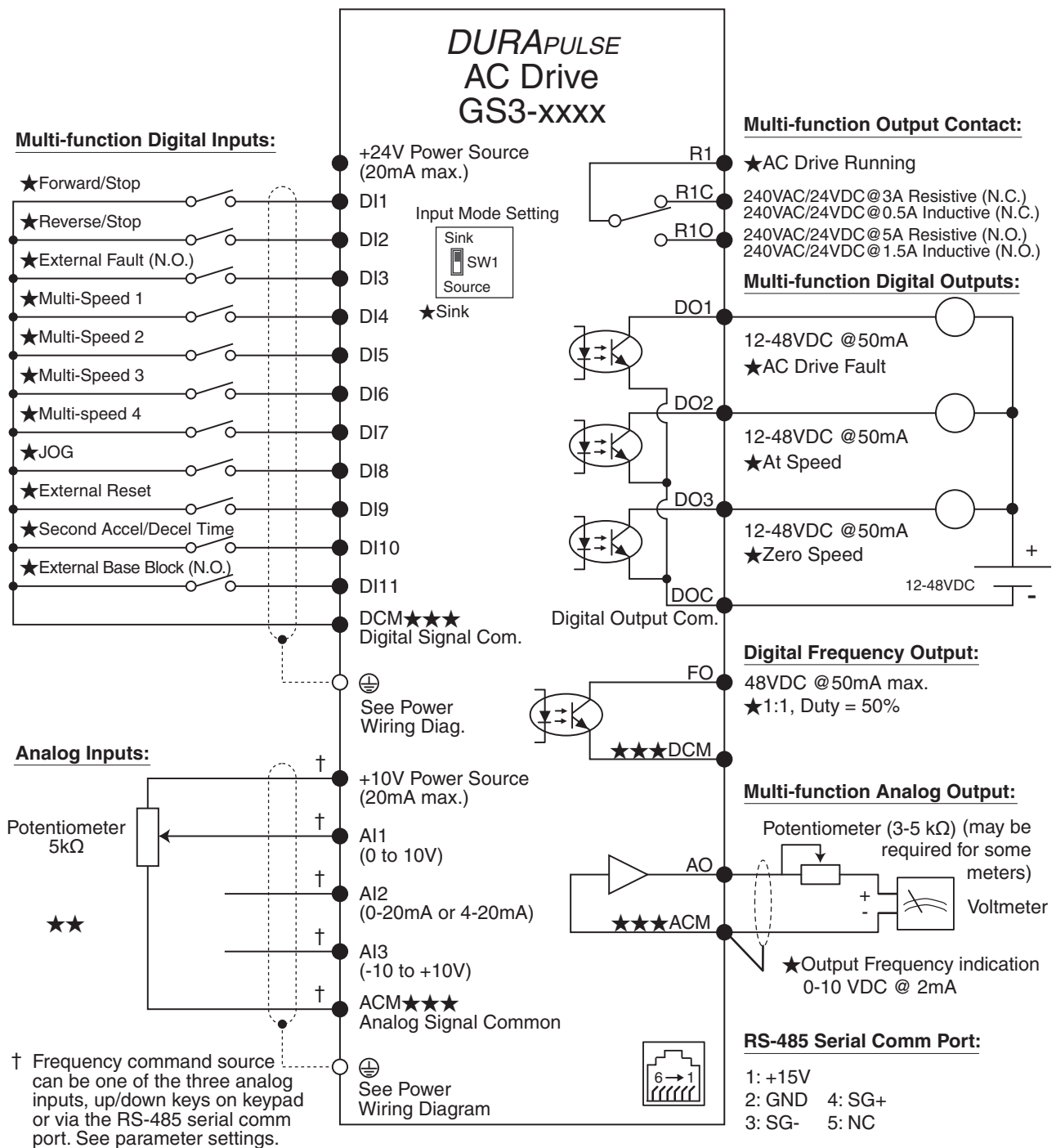


GS3-FB - WIRING DIAGRAM - LINE DRIVE TYPE ENCODER WITH RPM METER



"3Ø IM" denotes three phase induction motor.
"PG" denotes encoder pulse generator.

CONTROL WIRING DIAGRAM FOR SINKING INPUTS



★ Factory default setting

★★ Factory default source of frequency command is via the keypad up/down keys

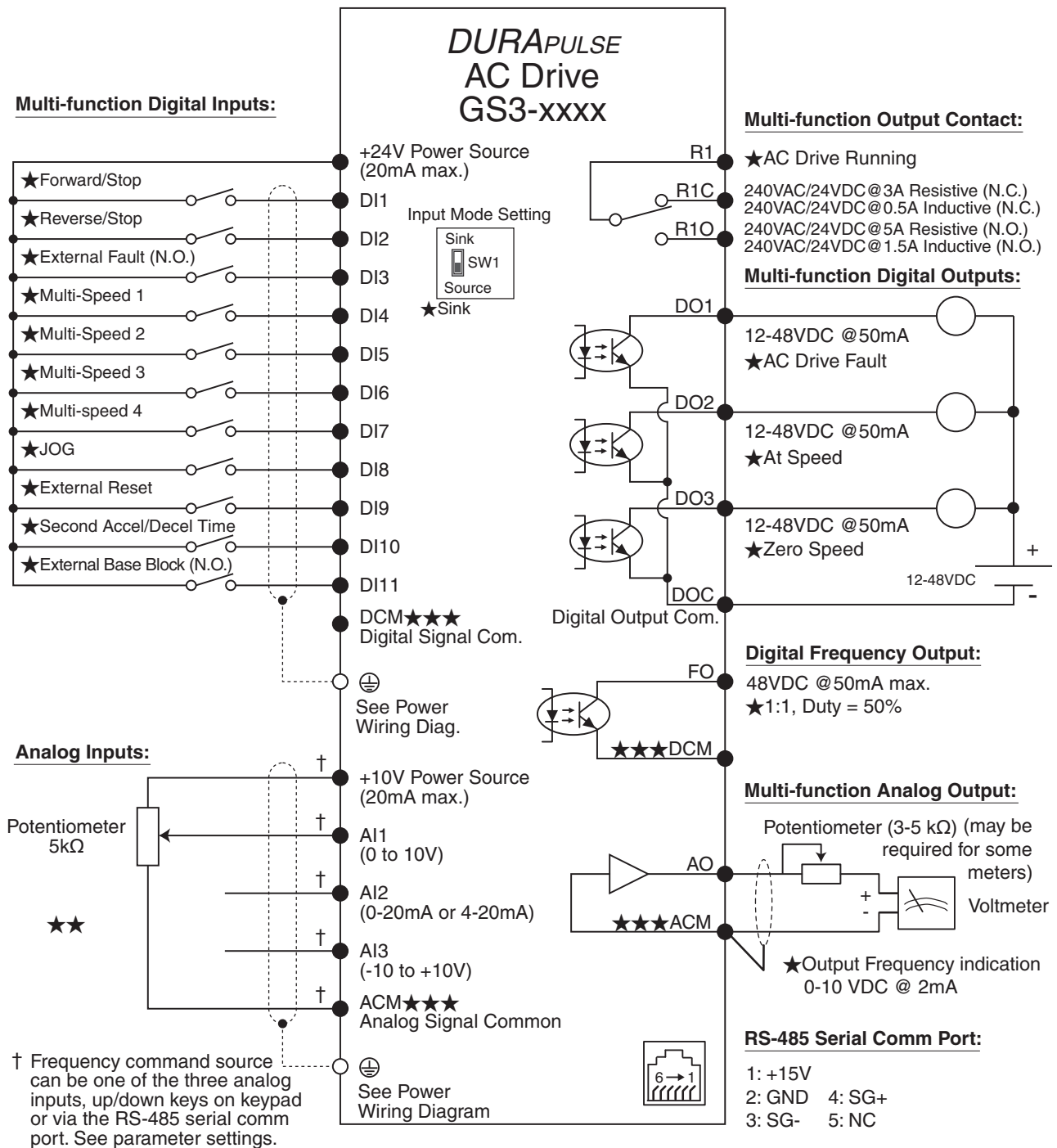
★★★ ACM and DCM are isolated from each other

○ Main circuit (power) terminals ● Control circuit terminal ⊕ Shielded leads



WARNING: Do not plug a modem or telephone into the DURAPULSE RJ-12 Serial Comm Port, or permanent damage may result.

CONTROL WIRING DIAGRAM FOR SOURCING INPUTS



★ Factory default setting

★★ Factory default source of frequency command is via the keypad up/down keys

★★★ ACM and DCM are isolated from each other

○ Main circuit (power) terminals ● Control circuit terminal ⚡ Shielded leads



WARNING: Do not plug a modem or telephone into the DURAPULSE RJ-12 Serial Comm Port, or permanent damage may result.

DURAPULSE ABBREVIATED PARAMETER LIST

This abbreviated parameter list contains only the most commonly used parameters. For the complete *DURAPULSE* parameter listing, see the *DURAPULSE* Drives User Manual, GS3-M.



To prevent the "Duplicate Function" error, you must first change parameter P4.13 to any value between 03 and 06 BEFORE changing P4.00 to 02.

Parameter	Description	Range
P0.00	Motor Nameplate Voltage	230V class: 200/208/220/230/240 460V class: 380/400/415/440/460/480
P0.01	Motor Nameplate Amps	Drive Rated Amps x 0.4 to 1.0
P0.02	Motor Base Frequency	50/60/400
P0.03	Motor Base RPM	375 to 24,000 rpm
P0.04	Motor Maximum RPM	P 0.03 to 24,000 rpm
P1.00	Stop Methods	00: Ramp to Stop 01: Coast to Stop
P1.01	Acceleration Time 1	0.1 to 600.0 sec
P1.02	Deceleration Time 1	0.1 to 600.0 sec
P2.00	Volts/Hertz Settings	00: General Purpose 02: Fans and Pumps 01: High Starting Torque 03: Custom
P2.02	Auto-torque Boost	00 to 10
P3.00	Source of Operation Command	00: Operation determined by digital keypad 03: Operation determined by RS-485 interface, keypad STOP is enabled 01: Operation determined by external control terminals, keypad STOP is enabled 04: Operation determined by RS-485 interface, keypad STOP is disabled 02: Operation determined by external control terminals, keypad STOP is disabled
*P3.31	2nd Source of Operation Command	
P3.01	Multi-function Inputs (DI1 - DI2)	00: DI1 - FWD / STOP; DI2 - REV / STOP 02: DI1 RUN momentary (N.O.) 01: DI1 - RUN / STOP; DI2 - REV / FWD DI2 REV / FWD DI3 STOP momentary (N.C.)
P3.02	Multi-function Input (DI3)	00: External Fault (N.O.) 11: External Base Block (N.C.)
P3.03	Multi-function Input (DI4)	01: External Fault (N.C.) 12: Second Accel/Decel Time
P3.04	Multi-function Input (DI5)	02: External Reset 13: Speed Hold
P3.05	Multi-function Input (DI6)	03: Multi-Speed Bit 1 14: Increase Speed
P3.06	Multi-function Input (DI7)	04: Multi-Speed Bit 2 15: Decrease Speed
P3.07	Multi-function Input (DI8)	05: Multi-Speed Bit 3 16: Reset Speed to Zero
P3.08	Multi-function Input (DI9)	06: Multi-Speed Bit 4 17: PID Disable (N.O.)
P3.09	Multi-function Input (DI10)	07: Manual Keyboard Control 18: PID Disable (N.C.)
P3.10	Multi-function Input (DI11)	09: Jog *19: 1st/2nd Source Select (N.O.) 10: External Base Block (N.O.) *20: 1st/2nd Source Select (N.C.) 99: Input Disable

** Marked parameters and settings are available only with firmware v1.04 or higher.*

Parameter	Description	Range	
P3.11	Multi-Function Output (RO)	00: AC Drive Running	08: Above Desired Current
P3.12	Multi-Function Output (DO1)	01: AC Drive Fault	09: Below Desired Current
P3.13	Multi-Function Output (DO2)	02: At Speed	10: PID Deviation Alarm
P3.14	Multi-Function Output (DO3)	03: Zero Speed	11: Heatsink Overheat Warning
		04: Above Desired Frequency	12: Soft Braking Signal
		05: Below Desired Frequency	13: Above Desired Frequency 2
		06: At Maximum Speed	14: Below Desired Frequency 2
		07: Over torque detected	15: Encoder Loss
			*16: PID Feedback Loss Warning
P4.00	Source of Frequency Command	01: Frequency determined by digital keypad up/down	
		02: Frequency determined by 0 to +10V input on AI1 terminal	
		03: Frequency determined by 4 to 20mA input on AI2 terminal	
*P4.13	2nd Source of Frequency Command	04: Frequency determined by 0 to 20mA input on AI2 terminal	
		05: Frequency determined by RS-485 communication interface	
		06: Frequency determined by 10V - +10V input on (AI3) terminal	
P 4.01	AI Offset Polarity	00: Offset disabled	02: Negative Offset
*P4.14	2nd AI Offset Polarity	01: Positive Offset	
P4.02	Analog Input Offset	0.0 to 100.0%	
*P4.15	2nd Analog In Offset		
P4.03	Analog Input Gain	0.0 to 300.0%	
*P4.16	2nd Analog In Gain		
P4.11	Analog Output Signal	00: Frequency Hz	02: PV
		01: Current A	
P4.12	Analog Output Gain	00 to 200%	
P7.00	Input Terminal for PID Feedback	00: Inhibit PID operation	03: Reverse Acting PID feedback; PV from AI1 (0 to + 10V)
		01: Forward Acting PID feedback; PV from AI1 (0 to + 10V)	
		02: Forward Acting PID feedback; PV from AI2 (4 to 20mA)	04: Reverse Acting PID feedback; PV from AI2 (4 to 20mA)
P7.02	PID Setpoint Source	00: Keypad	01: Serial Communications
		02: AI1 (0 to +10V)	03: AI2 (4 to 20mA)
P7.20	Proportional Control	0.0 to 10.0	
P7.21	Integral Control	0.00 to 100.0 sec	0.00: Disable
P7.22	Derivative Control	0.00 to 1.00 sec	
P8.00	User Defined Display Function	00: Output Frequency (Hz)	05: Output Voltage (V)
		01: Motor Speed (rpm)	06: DC Bus Voltage (V)
		02: Output Freq. x Scaled Freq	07: PID Setpoint
		03: Output Current (A)	08: PID Feedback (PV)
		04: Motor Load (%)	09: Frequency Setpoint
P8.01	FrequencyScaleFactor	0.01 to 160.0	
P9.08	Restore to Default	99: Restores ALL parameters to factory defaults	
**P9.39	Firmware Version	#.##	
* Marked parameters and settings are available only with firmware v1.04 and higher.			
** P9.39 is available only with firmware v1.02 and higher.			

Parameter	Description	Range
P 6.31	Present Fault Record	00: No Fault occurred 01: Over-current (oc) 02: Over-voltage (ov) 03: Over-temperature
P 6.32	Second Most Recent Fault Record	04: Overload (oL) 05: Thermal Overload (oL1) 06: Over-torque (oL2) 07: External Fault (EF)
P 6.33	Third Most Recent Fault Record	08: CPU Failure 1 (CF1) 09: CPU Failure 2 (CF2) 10: CPU Failure 3 (CF3)
P 6.34	Fourth Most Recent Fault Record	11: Hardware Protection Failure (HPF) 12: Over-current during accel (OCA) 13: Over-current during decel (OCd) 14: Over-current during steady state (OCn) 15: Ground Fault or Fuse Failure (GFF)
P 6.35	Fifth Most Recent Fault Record	17: Input Power Three-phase Loss 19: Auto Ramp Fault 20: Parameters Locked
P 6.36	Sixth Most Recent Fault Record	21: PID Feedback Loss (FbE) 22: Encoder Feedback Loss 23: Output Shorted(OCC) 24: Momentary Power Loss



Technical Support

Telephone: 770-844-4200
(Mon.-Fri., 9:00 a.m. - 6:00 p.m. E.T.)

Web: www.automationdirect.com

Our technical support group is glad to work with you in answering your questions. If you cannot find the solution to your particular application, or, if for any reason you need additional technical assistance, please call technical support at **770-844-4200**. We are available weekdays from 9:00 a.m. to 6:00 p.m. Eastern Time.

We also encourage you to visit our web site where you can find technical and non-technical information about our products and our company. Visit us at **www.automationdirect.com**.

GS3-QR, Revision A, 06/2007

