Project/product code:

FM581

Description:

Digital controlled DC-Motors amplifier

Document type:

Technical specifications

Reference versions:

Hardware	FM581	55V 15A	100V 8A	200V 5A

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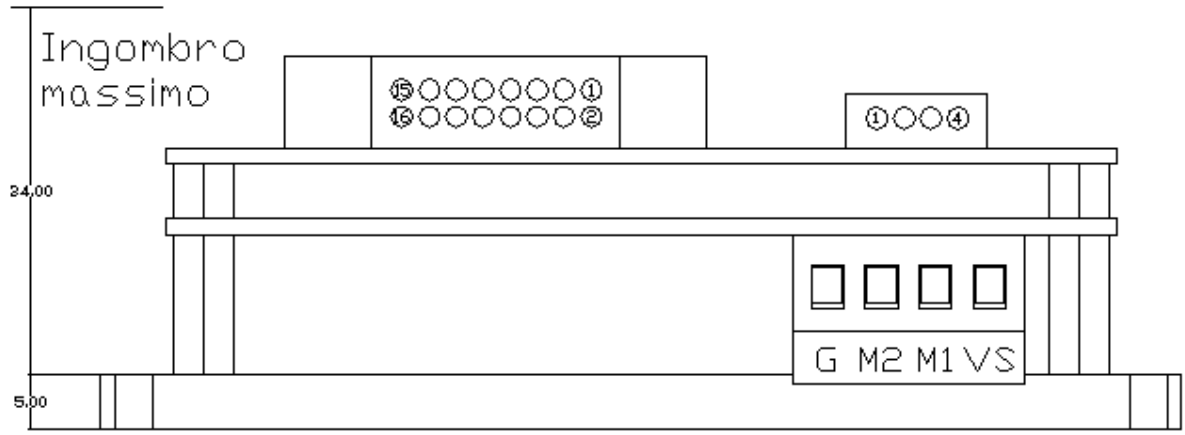
Technical specifications

FM581 size =>		55V 15A	100V 8A	200V 5A	
Output	Nominal current	15	8	5	A
	Maximum current	30	20	10	A
	Peak current	40	28	14	A
	Protection	• Supply overvoltage • Supply undervoltage • Shortcircuit • Shortcircuit to ground • Power stage overheating			
	Switching frequency	16			KHz
	PWM frequency	32			KHz
Power supply	Supply voltage (maximum)	55	100	195	Vdc
	Supply voltage (minimum)	20	20	40	Vdc
Interfaces	Control and configuration interface	Serial port RS232 19200Kbps,8E1			
	Communication protocol	ModBus, RTU mode Supported functions: 03h, 04h, 06h, 10h Slave address default: 1 (www.modbus.org)			
	Digital input	● Disable counter-clockwise rotation ● Disable clockwise rotation ● General inhibit			
	Digital output (open-drain, 24V 100mA)	● Curren limit / alarm (together) ● Drive inhibit / alarm (together)			
	Analog input	● +/-10V, main speed or current reference ● Tachometer input, with automatic offset and scale (max. 29V) ● 0-10V, nominal current limitation (abs[+/-10V])			
Control Loop features	Control loop mode	Current or Current+Speed by main input reference, with variable current limit by an auxiliary reference			
	Controller type	Current loop controller: PI Speed loop controller: PID			
	Feedback mode	For speed loop Back-EMF without external connection or with DC-tachometer.			
	Offset compesation and filtering	Automatic calibration of internal current and voltage offsets. Analog input low-pass filtered with configurable filter with the possibility to correct manually the offset.			
	Acceleration/Deceleration Ramps	from 0.1 to 30			s
Environment	Working temperature	from -10 to +50			°C
	Humidity (no condense)	from 5 to 95			%
	Protection class	IP00			
Weight Dimensions	Dimensions	100(h) x 65(l) x 39(p)			mm
	Weight	~0,2			Kg

Dimensions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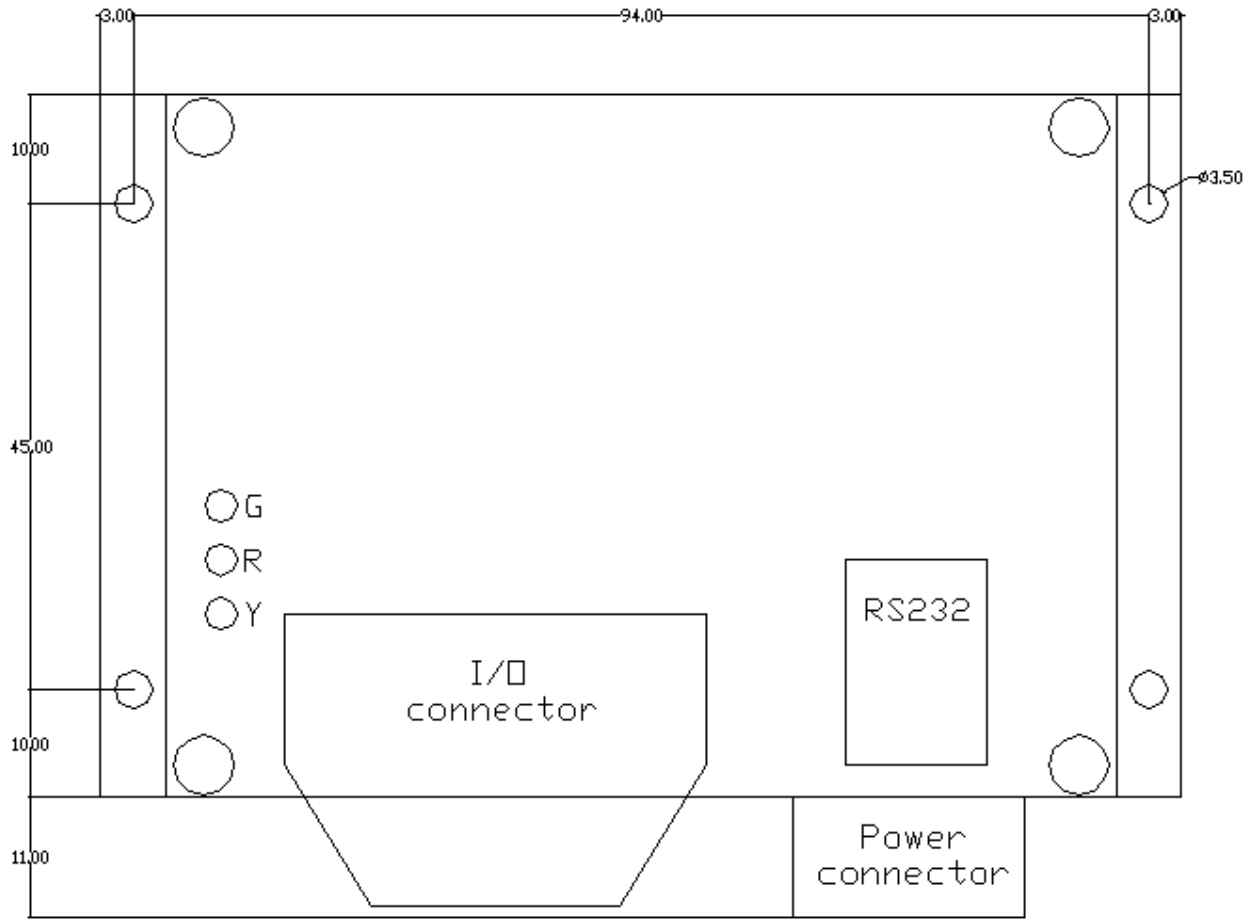
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Connections

Connections list			
Connector		***Description***	
J1	1	SpeedRef –	Analog input, speed/current main reference (+/-10V)
	2	SpeedRef +	
	3	Tacho –	Tachometer input (max. 29V)
	4	Tacho +	
	5	Ref –	Analog input, current limit (+/-10V)
	6	Ref +	
	7	Non connected	
	8	Input1	Clockwise rotation disable
	9	Input2	Counter-clockwise rotation disable
	10	Input3	Drive inhibit
	11	0V	Common 0V reference for the inputs
	12	Output1 (open-drain, 24V 100mA)	Digital output: drive inhibit / alarm
	13	-12V	Negative reference voltage for the analog inputs
	14	+12V	Positive reference voltage for the analog inputs
	15	Input4	Not used
	16	Output2 (open-drain, 24V 100mA)	Digital output: current limit / alarm
J2 (RS232)	1	Tx Data	Communication port RS232: 19200,8E1 Protocol ModBus, RTU mode Slave address default: 1
	2	Rx Data	
	3	GND	
	4	GND	
M1 (Power)	1	+V Supply	Main power supply, Positive
	2	M1	DC-Motor connection
	3	M2	
	4	GND	Main power supply, Ground