

# Euroamp 60 dc servo amplifier

# MSE421

MSE 421 provides a continuous output power rating up to 60 watts with precise servo control of dc servo motors. Operating from a single rail supply which enables battery operation if required, the unit utilises a MOSFET based **linear** output stage with the following operating advantages:

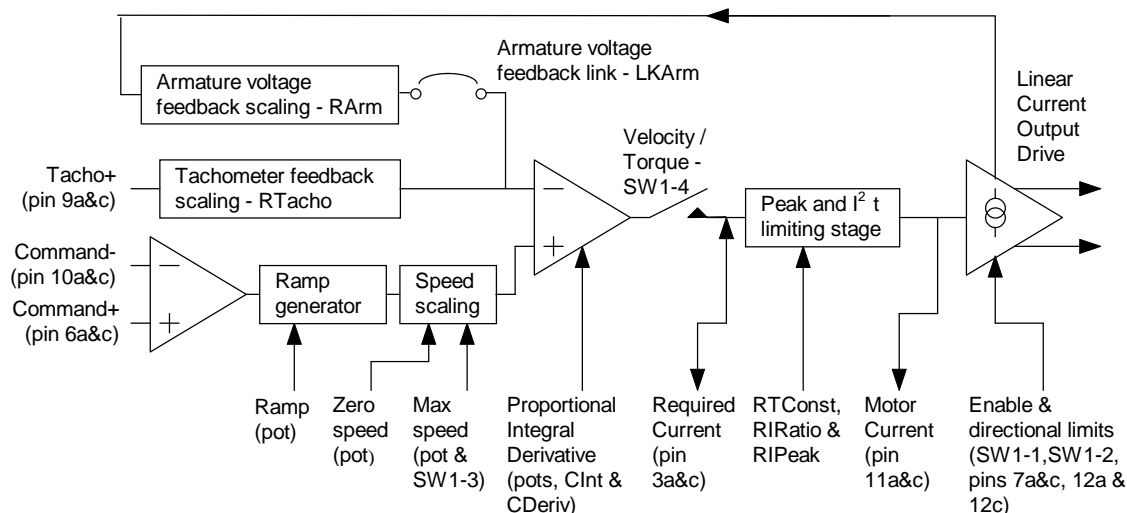
- Virtually zero electrical emissions
- Improved smoothness of motor operation
- Increased motor life
- Suitable for low inductance motors without the need for an additional choke.



**Euroamp 60** is packaged on a standard extended Eurocard format using surface mount technology to provide compact overall size and high reliability. The differential amplifier based input stage incorporates control technology based on many years experience in servo system design with the following features:

- adjustable peak output current up to 4 amps
- independently adjustable continuous output current up to 2 amps
- choice of velocity control using armature voltage sensing or tacho feedback
- optional torque control or positional control using analogue positional feedback signal
- plug-in personality header to match the drive to specific motor characteristics
- optional automatic velocity ramp for smooth starts using stepped input signal change
- directionally sensitive end of travel limit signal inputs
- remote enable signal input
- front panel adjustments of servo loop constants for easy commissioning
- front panel diagnostic LED display of drive condition.

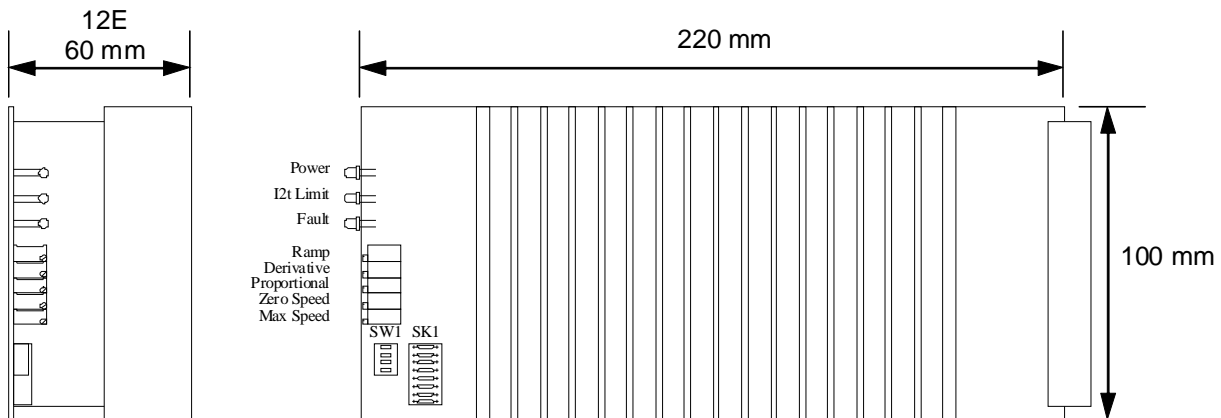
## Euroamp 60 Block Diagram



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## dimensions mm.



## specification

<b>Euroamp 60</b> Type number		<b>MSE 421-60</b>
Version with 3U high front panel		<b>PM 421 - 60</b>
Supply		10 - 30 Vdc <i>(Absolute maximum supply voltage: +32Vdc)</i>
Maximum output voltage		± 28 Vdc
Maximum continuous output current		2 amps
Maximum peak current		4 amps
motor stall protection / over correct protection		I <sup>2</sup> T
Input proportional control signal		± 10 Vdc
<b>Control options</b>		
Velocity Control options		using tacho or armature voltage feedback
Positional control		using analogue feedback signal
Torque control		motor torque proportional to ± 10 V signal
<b>Front panel adjustments</b>		
	Proportional gain	speed scaling
	derivative feedback	zero offset
	motor acceleration	
<b>Front panel diagnostics</b>		
	power on indicator	
	I <sup>2</sup> T indicator	
	fault indicator	
<b>Personality header functions</b>		
	Tacho feedback scaling	
	Armature feedback link	
	tuning of integration circuit	
	derivative circuit scaling	
	Armature feedback scaling	
	Time constant scaling	
	Peak current scaling	
	peak / continuous current ratio	
<b>external signals</b>		
reference supplies	outputs	+ 10 Vdc & - 10 Vdc output @ 3 mA
proportional command signal	inputs	+ 10 V
torque control command signal	input	+ 10 V
enable ( when selected internally )	input	+ 10 V - 30 Vdc signal
Tacho feedback signal	input	+ voltage signal internally scaled on header
Motor current	output	monitors motor torque
+ Direction overtravel limit	input	inhibits drive in positive direction
- Direction overtravel limit	input	inhibits drive in negative direction
Drive healthy	output	indicates over current or over temperature or I <sup>2</sup> T limiting

## Connections

Recommended motherboard for fitment to 19 in. rack systems : **MSB520**

Recommended motherboard for mounting on cabinet back panel : **2MH**

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