



## D.C. Drive

### Analog DC Drives

#### Standard Features :

Modular Construction for easy maintenance & ready for mounting inside a panel.

Both Armature Voltage & Tacho Feedback available as Site Selectable option.

IR Compensation for Armature Feedback.

Fault Status Indication by LED's.

Built In Test Points for maintenance.

Control through external Process Variable / Reference Signal like 4 To 20 mA & 0 To 10 V DC.

#### Optional Features :

- Panel enclosure with necessary protections, switchgear, indications, controls, chokes, PID, Fast acting fuses internally wired to the components and terminal
- Multi drive system with Individual and Synchronisation mode
- Fault annunciation
- Custom built system

#### Applications :

- Wire & Cable Industry viz. Extruder, Take-up, Pay-off, Capstan, Unwinder, Winder, G.T., D.T., etc.
- Steel Industry
- Mill Drive viz. Rolling mill, Tyre mill, Flattening mill, etc.
- Machining Center viz. VTL, Gig Boaring, Spindle, Gear grinding/shaving, Hobbing, Axis, Horizontal boaring, etc.
- Chemical Industry
- Textile Industry
- Cement Industry





## Katcon Make Analog DC Drive Modules

### Available In The Following Standard Series :

1.	MD Series	1 Phase, Full Wave Half Controlled, Upto 2 Amps.
2.	F Series	1 Phase, Full Wave Full Controlled, Upto 60 Amps.
3.	F RR Series	1 Phase, Full Wave Full Controlled, Regenerative, Upto 60 Amps.
4.	M Series	3 Phase, Full Wave Full Controlled, Upto 130 Amps.
5.	M-RR Series	3 Phase, Full Wave Full Controlled, Regenerative, Upto 100 Amps.
6.	D Series	3 Phase, Full Wave Full Controlled, Upto 1200 Amps.

## Technical Specifications

Rating	F Series - Upto 60 Amps F-RR Series -Upto 60 Amps	M Series - Upto 130 Amps	'M-RR' Series - Upto 100 Amps
Input AC Supply	1 Ph., 230 V AC $\pm$ 10 %, 50 Hz $\pm$ 2 Hz 2 Ph., 415 V AC $\pm$ 10 %, 50 Hz $\pm$ 2 Hz	3 Ph. 415 V AC $\pm$ 10%, 50 Hz $\pm$ 2 Hz, 4 Wire	3 Ph. 415 V AC $\pm$ 10%, 50 Hz $\pm$ 2 Hz, 4 Wire
Output Voltage	0-180 V DC To Armature 0-380 V DC To Armature 200 V DC To Field	0- 440 V DC To Armature 200 V DC To Field	0- 440 V DC To Armature 200 V DC To Field
Feedback (Site Selectable)	Armature Voltage / Tacho (Only Tacho F/B for RR Drives)	Armature Voltage / Tacho	Tacho Feedback
Speed Regulation	$\pm$ 1% with Tacho Feedback Or $\pm$ 2.5% with Armature Voltage Feedback	$\pm$ 1% with Tacho Feedback Or $\pm$ 2.5% with Armature Voltage Feedback	$\pm$ 1% with Tacho Feedback
Speed Range	20 : 1 of Base Speed	50 : 1 Base Speed	50 : 1 Base Speed
Protections	dv/dt Protection by RC Snubbers, Current Limit, Field Failure Relay.	dv/dt Protection by RC Snubbers, Current Limit, Field Failure Relay, Tacho Failure Trip, Over Speed Trip.	dv/dt Protection by RC Snubbers, FWD/REV Current Limit, Field Failure Relay.
Adjustments	Current Limit, Max. Speed, Stability, Acceleration & Deceleration Rate, IR Compensation (For Armature Voltage Feedback)	Current Limit, Max Speed, Acceleration & Deceleration Rate, Stability, Over Current Trip, IR Compensation, Over Speed Trip, Tacho Fail Trip.	Current Limit (FWD/REV), Max. Speed, Stability, Max. o/p.
LED Indications	For 1Q Drives : $\pm$ 15 v Healthy, Current Limit, Motor ON For 4 Q Drives : $\pm$ 15 v Healthy, Motor ON, FWD/REV	Power ON, Tacho Fail Trip, Over Current Trip, Over Speed Trip, Current Limit, Motor ON.	Power ON, Motor ON, FWD/REV.
Loading Conditions	125 % for 10 Seconds.	110% for 2 Hours.	100% continuous
Environmental Conditions A) Ambient Temp. B) Humidity C) Altitude		45% C Max. 95% Max. Non Condensing 1000 Mtrs. Max. Above MSL	
Construction	Open execution module suitable for mounting inside a panel.		
Models	F-12, F-30, F-40, F-60 FRR-30, FRR-40, FRR-60	M/15, M/40, M/80, M/100, M/130 D/200, D/300 up to D/1200	M-RR/15, M-RR/40, M-RR/80, M-RR/100

## Katcon make MD series DC Drives

### Model 1 :

Open execution type ready to mount in 3U rack

### Model 2 :

Aluminum Sub Rack 3U X 155 ready to mount on chassis



### MD Series DC Drives

#### Standard Features:

- Fully solid state power control
- Armature voltage & Current feedback to control the motor speed accurately
- IR compensation for Armature Feedback
- Control Through external 0 to 10 V.D.C. Signal with Isolation of 2kV
- Local /Remote selection through D/P switches
- Easy access to all required preset settings & Led Indications
- Set speed Pot on Front plate for Local mode



## Katcon MD Series Technical Specifications

Rating	0.75H.P. Max ( 2 Amps)
Input Supply	1 Phase, 230V A.C $\pm$ 10% 50Hz $\pm$ 2Hz.
Output Voltage	0-180 V .D.C
Regulation	2.5% on Armature Feedback
Reference	0 to + 10V.D.C, 2kV isolation between circuit ground & source ground
Enable	24V D.C. Signal from PLC or Potential free 'NO' contact
Local Reference	Set speed pot provided on front
Local / Remote	DIP switches are provided to select set point & Enable in case of Local & Remote operations.
Preset Adjustments	<ul style="list-style-type: none"> <li>■ IR Compensation for load regulation</li> <li>■ N max for speed adjustment</li> <li>■ Off-set for Zero speed.</li> <li>■ I lmt to set output current limit</li> </ul>
Led Induction	<ul style="list-style-type: none"> <li>■ Drive Enable</li> <li>■ Power On</li> <li>■ I lmt</li> <li>■ 'Armature Open ' fault trip</li> </ul>
Protections	<ul style="list-style-type: none"> <li>■ dv/dt protection by RC network</li> <li>■ Current limit</li> <li>■ Armature open</li> <li>■ Isolated Input reference</li> </ul>
Relay output	Potential free contact for drive healthy 2 amp / 230 V .A.C.
External Connector type	Phoenix plug in type 2.5. Sq. mm
Mounting Construction	1. Size : 45 x 125 x140 mm (L x H x D) open execution ready to mount in 3U Rack 2. Aluminium sub-rack 3U x 155 mm depth ready to mount on chassis / tray
Operating Temp	max. upto 45°C

In keeping with our constant endeavour to meet market needs, we reserve the right to alter or change the specifications mentioned without prior notice.



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