Instruction manual
Reversing unit

The REVERSING UNIT is a complex component only for professional assemblers. The unit is CE marked according to LVD 73/23/EEC amended 93/68/EEC. Follow these installation guidelines for EMC compatibility. Further measures may be necessary. Installers must have a level of technical competence to correctly install. The EMC behaviour is the responsibility of the manufacturer of the system or installation using this component.

Used with 400/800/1200 DC. drive units

FEATURES
Safe reversing with zero speed interlock
Connections for dynamic brake resistor
Includes all power contacts
110 or 240V AC power supply
Minimises wiring
Versatile control options
Very compact
12 AMP current rating
Switch terminals are isolated
May be interfaced with logic controller

SPECIFICATION
supply voltage 110 or 240 volts AC
current rating 12 AMPS
max. form factor 1.5
switch requirement single pole 2 way centre off
ambient temp 0 to 40C
control action automatic zero speed interlock
dimensions W 50 mm
H 130 mm
D 40 mm

TYPICAL WIRING DIAGRAM FOR BASIC FORWARD STOP REVERSE SWITCH

DANGER
ELECTRIC SHOCK RISK

Alternative configurations of the FWD STOP REVERSE control section
Dynamic braking resistor

Provision is made on the reversing unit to fit a dynamic braking resistor if required. The resistor value and wattage depends on various factors.

The formulae below allows useful parameters to be calculated according to the motor rating.

1) Braking resistance $RB = \left[ \frac{PT/Ian + PT/Ibm - Uan}{1/Ian} \right] \times 1/Ian$

2) Max. braking torque $Ma = Mn \times Ibm / Ian$

3) Average dissipation = average braking current $\times$ average braking voltage

4) Peak dissipation = $(Ian)^2 \times RB$

$RB =$ braking resistance in OHMS
$PT =$ nameplate power of the motor
$Uan =$ nominal armature volts
$Mn =$ nominal torque of the motor in Nm

$Ian =$ nominal armature current
$Ibm =$ maximum braking current in Amps
$Ma =$ braking torque in Nm

NOTES
1) The unit is designed to be used with models 400/800/1200 and 400i

2) The unit is the same length as the drive and the terminals are located close to the appropriate drive terminal.

3) For EMC installation guidelines refer to the drive manual. The unit must be in the same enclosure as the drive. The noise generated by the unit itself is minimal, due to the use of interlocking relay logic.

4) Some installations may require a resistor of 100K Ohms 1 Watt fitted across the DRIVE armature terminals to prevent the drive zero detector being triggered by cable induced noise.

Fixings are by rear access No. 6 self tapping screws

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