

Standard screwdriver		mm	0.8 x 5.5 1 x 6
Control circuit cables			
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 x 5.5 1 x 6

### Main conducting paths

Rated impulse withstand voltage	$U_{imp}$	V AC	8000
Overvoltage category/pollution degree			III/3
Rated insulation voltage	$U_i$	V AC	690
Rated operational voltage	$U_e$	V AC	690
Safe isolation to EN 61140			
between coil and contacts		V AC	440
between the contacts		V AC	440
Making capacity (p.f. to IEC/EN 60947)			
	$U_p$ to 690 V	A	560
Breaking capacity			
220 V 230 V		A	400
380 V 400 V		A	400
500 V		A	400
660 V 690 V		A	250
Short-circuit rating			
Short-circuit protection maximum fuse			
Type "2" coordination			
400 V	gG/gL 500 V	A	63
690 V	gG/gL 690 V	A	50
Type "1" coordination			
400 V	gG/gL 500 V	A	125
690 V	gG/gL 690 V	A	80

### AC

AC-1			
Rated operational current			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	A	60
at 50 °C	$I_{th} = I_e$	A	57
at 55 °C	$I_{th} = I_e$	A	55
at 60 °C	$I_{th} = I_e$	A	50
enclosed	$I_{th}$	A	45
Conventional free air thermal current, 1 pole			
open	$I_{th}$	A	125
enclosed	$I_{th}$	A	112
AC-3			
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	$I_e$	A	40
240 V	$I_e$	A	40
380 V 400 V	$I_e$	A	40
415 V	$I_e$	A	40
440V	$I_e$	A	40
500 V	$I_e$	A	40
660 V 690 V	$I_e$	A	25
380 V 400 V	$I_e$	A	40
Motor rating	P	kWh	
220 V 230 V	P	kW	12.5

240 V	P	kW	13.5
380 V 400 V	P	kW	18.5
415 V	P	kW	24
440 V	P	kW	25
500 V	P	kW	28
660 V 690 V	P	kW	23
<b>AC-4</b>			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	$I_e$	A	18
240 V	$I_e$	A	18
380 V 400 V	$I_e$	A	18
415 V	$I_e$	A	18
440 V	$I_e$	A	18
500 V	$I_e$	A	18
660 V 690 V	$I_e$	A	14
Motor rating			
220 V 230 V	P	kW	5
240 V	P	kW	5.5
380 V 400 V	P	kW	9
415 V	P	kW	9.5
440 V	P	kW	10
500 V	P	kW	11
660 V 690 V	P	kW	12

## DC

Rated operational current, open			
<b>DC-1</b>			
60 V	$I_e$	A	50
110 V	$I_e$	A	50
220 V	$I_e$	A	45
440 V	$I_e$	A	2.9
<b>DC-3</b>			
60 V	$I_e$	A	50
110 V	$I_e$	A	50
220 V	$I_e$	A	25
440 V	$I_e$	A	0.6
<b>DC-5</b>			
60 V	$I_e$	A	50
110 V	$I_e$	A	50
220 V	$I_e$	A	25
440 V	$I_e$	A	0.6

## Current heat loss

3-pole at $I_{th}$		W	12.3
Current heat loss at $I_e$ to AC-3/400 V		W	6.6
Impedance per pole		m $\Omega$	1.9

## Magnet systems

Voltage tolerance		$x U_c$	
AC operated	Pick-up	$x U_c$	0.8 - 1.1
Drop-out voltage AC operated	Drop-out	$x U_c$	0.3 - 0.6
DC operated	Pick-up	$x U_c$	0.7 - 1.2
DC operated	Drop-out	$x U_c$	0.15 - 0.6
Notes			at least smoothed two-phase bridge rectifier or three-phase rectifier
Power consumption of the coil in a cold state and $1.0 \times U_c$			
50 Hz	Pick-up	VA	149
50 Hz	Sealing	VA	16