

Type: **DILM65(230V50HZ,240V60HZ)**

Article No.: **277894**



### Ordering information

Rated operational current AC-3 400 V	$I_e$	A	65
Max. rating for three-phase motors, 50 – 60 Hz AC-3 230 V	$P$	kW	20
Max. rating for three-phase motors, 50 – 60 Hz AC-3 400 V	$P$	kW	30
Max. rating for three-phase motors, 50 – 60 Hz AC-3 690 V	$P$	kW	35
Max. rating for three-phase motors, 50 – 60 Hz AC-4 230 V	$P$	kW	7
Max. rating for three-phase motors, 50 – 60 Hz AC-4 400 V	$P$	kW	12
Max. rating for three-phase motors, 50 – 60 Hz AC-4 690 V	$P$	kW	17
Conventional thermal current $I_{th} = I_e$ AC-1 Open	$I_{th} = I_e$	A	72
For use with			DILM150-XHI(V).. DILM1000-XHI(V)..

### General

Standards			IEC/EN 60947, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	$\times 10^6$	10
DC operated	Operations	$\times 10^6$	10
Operating frequency, mechanical			
AC operated	Operations/h		5000
DC operated	Operations/h		5000
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclical, to IEC 60068-2-30
Ambient temperature			

Open		°C	-25/60
Enclosed		°C	-25/40
Storage		°C	-40/80
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 20 ms			
Main contacts			
Make contact		g	10
Auxiliary contacts			
Make contact		g	7
Break contact		g	5
Protection type			IP00
Protection against direct contact when actuated from front (IEC 536)			Finger- and back-of-hand proof
Weight			
AC operated		kg	0,9
DC operated		kg	1,1
Terminal capacity Main cable			
Solid		mm <sup>2</sup>	1 × (2.5 – 16) 2 × (2.5 – 16)
Flexible with ferrule		mm <sup>2</sup>	2 × (2.5 – 25) 1 × (2.5 – 35)
Stranded		mm <sup>2</sup>	1 × (16 – 50) 2 × (16 – 35)
Solid or stranded		AWG	12 – 2
flat conductor	Number of segments × width × thickness	mm	2 × (6 × 9 × 0.8)
Anschlusschraube Hauptleiter			M6
Tightening torque		Nm	3
Terminal capacity Control circuit cables			
Solid		mm <sup>2</sup>	1 × (0.75 – 4) 1 × (0.75 – 4)
Flexible with ferrule		mm <sup>2</sup>	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)
Solid or stranded		AWG	18 – 14
Anschlusschraube Hilfsleiter			M3.5
Tightening torque		Nm	1.2
Tool			
Main cable			
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 × 5.5 1 × 6
Control circuit cables			
Pozidriv screwdriver		Size	2
Standard screwdriver		mm	0.8 × 5.5 1 × 6
Terminal capacity Control circuit cables			
Solid		mm <sup>2</sup>	0.75 – 2.5

Flexible		mm <sup>2</sup>	0.75 – 2.5
Flexible with ferrule		mm <sup>2</sup>	0.75 – 2.5
Solid or stranded		AWG	18 – 14
Tool			
Stripping length		mm	10
Screwdriver blade width		mm	3,5

### Main conducting paths

Rated impulse withstand voltage	$U_{imp}$	V AC	8000
Overvoltage category/pollution degree			III/3
Rated insulation voltage			
AC	$U_i$	V AC	690
Rated operational voltage	$U_e$	V AC	690
Safe isolation to VDE 0106 Part 101 and Part 101/A1			
between coil and contacts		V AC	440
between the contacts		V AC	440
Making capacity (cos $\tilde{O}$ to IEC/EN 60947) up to 690 V		A	910
Breaking capacity			
220/230 V		A	650
380/400 V		A	650
500 V		A	650
660/690 V		A	370
Component lifespan			
AC–3/AC–4			Tripping characteristics
Maximum operating frequency			
AC–1; 400 V	$I_e$	Ops/h	800
AC–3; 400 V	$I_e$	Ops/h	800
AC–4; 400 V	$I_e$	Ops/h	300
Short–circuit rating			
Short–circuit protection Maximum fuse			
Type “2” coordination			
400 V	gG/gL 500 V	A	125
690 V	gG/gL 690 V	A	80
Type “1” coordination			
400 V	gG/gL 500 V	A	250
690 V	gG/gL 690 V	A	100

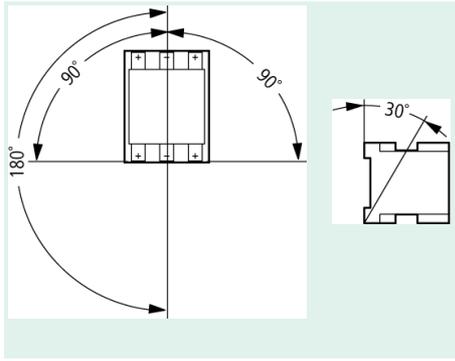
### AC

AC–1 duty			
conv. therm. current 3–pole 50 – 60 Hz			
open			
at 40 °C	$I_{th}$	A	85
at 50 °C	$I_{th}$	A	80
at 55 °C	$I_{th}$	A	75
at 60 °C	$I_{th}$	A	72
Enclosed	$I_{th}$	A	65

Conventional free air thermal current, 1-pole			
open	$I_{th}$	A	180
Enclosed	$I_{th}$	A	162
AC-3 duty			
Rated operational current AC-3 open, 50 – 60 Hz, 3-pole			
220/230 V	$I_e$	A	65
240 V	$I_e$	A	65
380/400 V	$I_e$	A	65
415 V	$I_e$	A	65
440V	$I_e$	A	65
500 V	$I_e$	A	65
660/690 V	$I_e$	A	37
Motor rating			
220/230 V	$P$	kW	20
240V	$P$	kW	22
380/400 V	$P$	kW	30
415 V	$P$	kW	39
440 V	$P$	kW	41
500 V	$P$	kW	47
660/690 V	$P$	kW	35
AC-4 duty			
Rated operational current AC-4 open, 50 – 60 Hz, 3-pole			
220/230 V	$I_e$	A	25
240 V	$I_e$	A	25
380/400 V	$I_e$	A	25
415 V	$I_e$	A	25
440 V	$I_e$	A	25
500 V	$I_e$	A	25
660/690 V	$I_e$	A	20
Motor rating			
220/230 V	$P$	kW	7
240 V	$P$	kW	7,5
380/400 V	$P$	kW	12
415 V	$P$	kW	13
440 V	$P$	kW	14
500 V	$P$	kW	16
660/690 V	$P$	kW	17
<b>DC</b>			
of three-phase capacitors open			
DC-1 operation			
60 V	$I_e$	A	72
110 V	$I_e$	A	72
220 V	$I_e$	A	65
440 V	$I_e$	A	2,9
DC-3 operation			

60 V	$I_e$	A	72
110 V	$I_e$	A	72
220 V	$I_e$	A	35
440 V	$I_e$	A	0,6
DC-5 operation			
60 V	$I_e$	A	72
110 V	$I_e$	A	72
220 V	$I_e$	A	35
440 V	$I_e$	A	0,6
<b>Current heat loss (3-pole)</b>			
Current heat loss at $I_{th}$		W	15,6
Current heat loss at $I_e$ to AC-3/400 V		W	12,7
Impedance per pole		mΩ	1,5
<b>Magnet systems</b>			
Voltage tolerance			
AC operated			
AC operated	Pick-up	$\times U_c$	0,8 – 1,1
Drop-out voltage AC operated			
Drop-out voltage AC operated	Abfall	$\times U_c$	0,3 – 0,6
DC operated			
DC operated	Pick-up	$\times U_c$	0,7 – 1,2
DC operated			
DC operated	Abfall	$\times U_c$	0,15–0,6
Power consumption of the coil in a cold state and $1.0 \times U_c$			
50 Hz	Pick-up	VA	130
50 Hz	Pick-up	W	80
50 Hz	Sealing	VA	14
50 Hz	Sealing	W	4
DC operated	Pick-up	W	24 at 24 V
DC operated	Sealing	W	0.5 at 24 V
Duty factor		% DF	100
Switching times at 100 % $U_c$ (approximate values)			
Main contacts			
AC operated			
Closing delay		ms	25
Opening delay		ms	25
DC operated			
Closing delay		ms	60
Opening delay		ms	20
Arcing time		ms	10
<b>Electromagnetic compatibility (EMC)</b>			
Emitted interference			to EN 60947-1
Interference immunity			to EN 60947-1

## Mounting position, AC- and DC operated



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