

## 4 Pole Switching with the DILMP Contactors

### **xStart**

The complete range of contactors, efficient motor-starters and variable speed drives for the motor circuit. New simple to install solutions based on clever communication.

### **DIL contactors**

PKZ motor-protective circuit-breakers

MSC motor-starters

DS 4 softstarters

DF & DV Drives

Rapid Link



**MOELLER** 

We keep power under control.



## 4 pole DILMP contactors

Industry and trade expect clear progress in electronics so that processes can be more efficiently designed - from planning via engineering to mounting and installation. The 4 pole DILMP contactor fulfills these demands completely with its optimised dimensioning and innovations in termination and actuation.

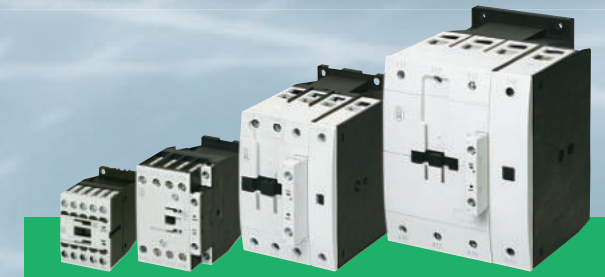
Typical application areas of the DILMP contactor are:

- Mains disconnection and mains changeover
- Switching of heating systems
- 4 pole load switching

### AC and DC contactor system xStart 4 pole DILMP contactor up to 200 A

- Identical frame sizes for AC and DC operated contactors simplify the engineering
- Minimised heat dissipation allows a higher packing density in the control panel
- Higher wiring safety due to double box terminals
- Less intermediate relays because contactors up to 45 A can be directly actuated from the PLC
- Simple engineering due to integrated suppressors in the DC operated contactors
- Two-way mechanical interlock can be mounted without extra distance between contactors
- Uniform accessories for 3 pole and 4 pole contactors

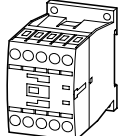

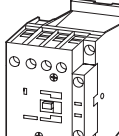

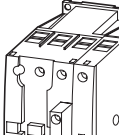

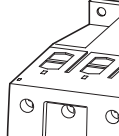
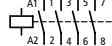
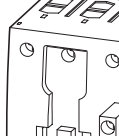
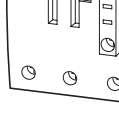
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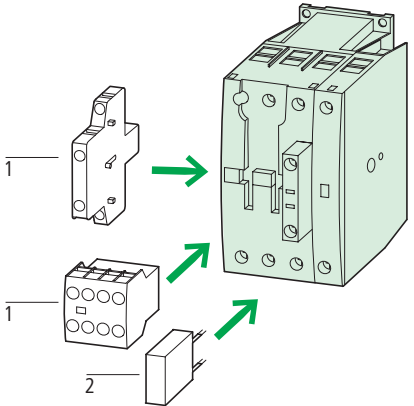


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Rated operational current 50 – 60 Hz open			Conventional thermal current $I_{th} = I_e$ AC-1	Contact sequence	Can be combined with auxiliary contact
AC-1					
40 °C	50 °C	60 °C	Open		
A	A	A	$I_{th} = I_e$		

DILMP contactors					
	22	21	20	20	 DILM32-XHI(C)... DILA-XHI(V)(C)...
	32	30	28	32	 DILM32-XHI(C)... DILA-XHI(V)(C)...
	45	41	39	45	
	63	60	54	63	 DILM150-XHI(A)(V)... or DILM1000-XHI11-SA <sup>1)</sup> or DILM1000-XHI(V)11-SI <sup>1)</sup>
	80	76	69	80	
	125	116	108	125	 DILM150-XHI(A)(V)... DILM1000-XHI(V)... <sup>1)</sup>
	160	150	138	160	
	200	188	172	200	

AC operation		DC operation		Std. pack	Notes
Part no. Article no.	Price see price list	Part no. Article no.	Price see price list		
DILMP20(230V50HZ) 276970		DILMP20(24VDC) 276985		1 off	 <p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>1 auxiliary contact modules → 4</li> <li>2 suppressor → 6</li> <li>further actuating voltages → 8</li> <li>Accessories → 7</li> </ul> <p>DC operated contactors have integral suppressors (DILMP20: varistor). Contactors DILMP125, DILMP160 and DILMP200 have an integrated suppressor.</p> <p><sup>1)</sup> DILM1000-XHI... can only be to DILMP... on the LHS</p>
DILMP32-10(230V50HZ) 109797		DILMP32-10(RDC24) 109811			
DILMP45-10(230V50HZ) 109826		DILMP45-10(RDC24) 109840			
DILMP63(230V50HZ) 109855		DILMP63(RDC24) 109869			
DILMP80(230V50HZ) 109884		DILMP80(RDC24) 109898			
DILMP125(RAC24) 109905		DILMP125(RDC24) 109910			
DILMP160(RAC24) 109915		DILMP160(RDC24) 109920			
DILMP200(RAC24) 109925		DILMP200(RDC24) 109930			

# Ordering


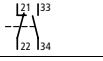
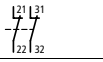




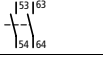
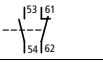
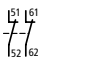
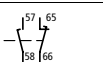

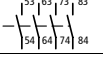
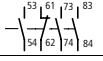
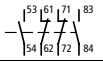
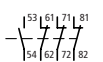
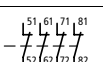
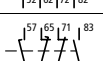
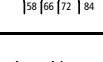
## Auxiliary contact modules

xStart

DILM, DILA




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Connection technique		Conventional thermal current $I_{th} = I_e$ AC-1 at 60 °C	Contacts	Contact sequence	Can be combined with basic unit	Part no. Article no.	Price see price list	Std. pack
		Open $I_{th} = I_e$ A	N/O = Normally open, N/O <sub>E</sub> = Normally open (early make contact) N/C = Normally closed N/C <sub>L</sub> = Normally closed (late break contact)					
<b>Auxiliary contact modules</b>								
With positively driven contacts; except XHIV and XHICV								
Top mounting auxiliary contacts								
	Screw terminals	2 pole	16	1 N/O	1 N/C		DILMP20 DILMP32-10 DILMP45-10	5 off
			16	–	2 N/C			
	Screw terminals	4 pole	16	2 N/O	2 N/C		DILMP20 DILMP32-10 DILMP45-10	5 off
			16	3 N/O	1 N/C			
	Screw terminals	2 pole	16	2 N/O	–		DILMP20 DILMP32-10 DILMP45-10	5 off
			16	1 N/O	1 N/C			
			16	–	2 N/C			
			16	1 N/O <sub>E</sub>	1 N/C <sub>L</sub>			
	Screw terminals	4 pole	16	4 N/O	–		DILMP20 DILMP32-10 DILMP45-10	5 off
			16	3 N/O	1 N/C			
			16	2 N/O	2 N/C			
			16	1 N/O	3 N/C			
			16	–	4 N/C			
			16	1 N/O, 1 N/O <sub>E</sub>	1 N/C, 1 N/C <sub>L</sub>			
			16	–	–			

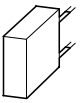

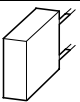

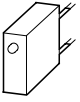
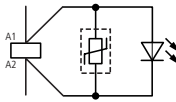
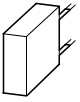

**Notes**


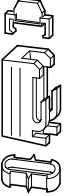

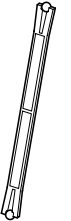

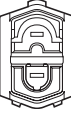
- Interlocked opposing contacts, to IEC/EN 60947-5-1 Annex L, within the auxiliary contact modules (not N/O (early make) and N/C (late break) contacts) and for the built-in auxiliary contacts of the DILM7 – DILM32
- Auxiliary break contact can be used as mirror contact to IEC/EN 60947-4-1 Annex F (not N/C (late break) contact)

Connection technique	Conventional thermal current $I_{th} = I_e$ AC-1 Open $I_{th} = I_e$ A	Contacts	Contact sequence	Can be combined with basic unit	Part no. Article no.	Price see price list	Std. pack	
<b>Auxiliary contact modules</b>								
With positively driven contacts; except XHIV and XHICV								
	Screw terminals	2 pole	16	2 N/O	—	DILMP63 DILMP80 DILMP125 DILMP160 DILMP200	<b>DILM150-XHI20</b> 277945	5 off
			16	1 N/O	1 N/C		<b>DILM150-XHI11</b> 277946	
			16	1 N/O	1 N/C		<b>DILM150-XHIA11</b> 283463	
			16	—	2 N/C		<b>DILM150-XHI02</b> 277947	
	Screw terminals	4 pole	16	4 N/O	—	DILM150-XHI20 DILM150-XHI11 DILM150-XHIA11 DILM150-XHI02 DILM150-XHI40 DILM150-XHI31 DILM150-XHI22 DILM150-XHIA22 DILM150-XHI13 DILM150-XHI04 DILM150-XHIV22	<b>DILM150-XHI40</b> 277948	5 off
			16	3 N/O	1 N/C		<b>DILM150-XHI31</b> 277949	
			16	2 N/O	2 N/C		<b>DILM150-XHI22</b> 277950	
			16	2 N/O	2 N/C		<b>DILM150-XHIA22</b> 283464	
			16	1 N/O	3 N/C		<b>DILM150-XHI13</b> 277951	
			16	—	4 N/C		<b>DILM150-XHI04</b> 277952	
			16	1 N/O, 1 N/O <sub>E</sub>	1 N/C, 1 N/C <sub>L</sub>		<b>DILM150-XHIV22</b> 277953	
			<b>Side mounting auxiliary contacts</b>					
	Screw terminals	2 pole	10	1 N/O	1 N/C	DILMP63 DILMP80 DILMP125 DILMP160 DILMP200	<b>DILM1000-XHI11-SI</b> 278425	1 off
			10	1 N/O <sub>E</sub>	1 N/C <sub>L</sub>		<b>DILM1000-XHIV11-SI</b> 278426	
			10	1 N/O	1 N/C		<b>DILM1000-XHI11-SA</b> 278427	

DILMP Contactors



	Voltage $U_s$ V	For use with	Contact sequence	Part no. Article no.	Price see price list	Std. pack	Notes					
<b>Suppressors</b>												
<b>RC suppressors</b>												
	24 – 48 AC	DILMP20		DILM12-XSPR48 281199		10 off	For AC-operated contactors 50 – 60 Hz. With DC operated contactors and with DILM115 and DILM150 or DILMP125 to DILMP 200 the suppressor is integrated. Note drop-out delay					
	110 – 240 AC			DILM12-XSPR240 281200								
	240 – 500 AC			DILM12-XSPR500 281201								
	24 – 48 AC	DILMP32 DILMP45		DILM32-XSPR48 281202								
	110 – 240 AC			DILM32-XSPR240 281203								
	240 – 500 AC			DILM32-XSPR500 281204								
	24 – 48 AC	DILMP63 DILMP80		DILM95-XSPR48 281205								
	110 – 240 AC			DILM95-XSPR240 281206								
	240 – 500 AC			DILM95-XSPR500 281207								
<b>Varistor suppressors</b>												
	24 – 48 AC	DILMP20		DILM12-XSPV48 281208		10 off	For AC-operated contactors 50 – 60 Hz. With DC operated contactors and with DILM115 and DILM150 or DILMP125 to DILMP 200 the suppressor is integrated. Note drop-out delay					
	48 – 130 AC			DILM12-XSPV130 281209								
	130 – 240 AC			DILM12-XSPV240 281210								
	240 – 500 AC	DILM12-XSPV500 281211										
	24 – 48 AC	DILMP32 DILMP45		DILM32-XSPV48 281212								
	48 – 130 AC			DILM32-XSPV130 281213								
	130 – 240 AC			DILM32-XSPV240 281214								
	240 – 500 AC	DILM32-XSPV500 281215										
	24 – 48 AC	DILMP63 DILMP80		DILM95-XSPV48 281216								
	48 – 130 AC			DILM95-XSPV130 281217								
	130 – 240 AC			DILM95-XSPV240 281218								
	240 – 500 AC	DILM95-XSPV500 281219										
	<b>Varistor suppressors with integrated LED</b>											
		24 – 48 AC		DILMP20					DILM12-XSPVL48 281220		10 off	For AC-operated contactors 50 – 60 Hz. With DC operated contactors and with DILM115 and DILM150 or DILMP125 to DILMP 200 the suppressor is integrated. Note drop-out delay
		130 – 240 AC							DILM12-XSPVL240 281221			
24 – 48 AC		DILMP32 DILMP45	DILM32-XSPVL48 281222									
130 – 240 AC			DILM32-XSPVL240 281223									
24 – 48 AC		DILMP63 DILMP80	DILM95-XSPVL48 281224									
130 – 240 AC			DILM95-XSPVL240 281225									
<b>Free-wheel diode suppressor</b>												
		12 – 250 DC	DILMP20		DILM12-XSPD 101672		10 off		In addition to the built-in suppressor circuit for DC actuated contactors. Prevents negative breaking voltage when contactors are used in combination with a safety PLC.			

	For use with	Part no. Article no.	Price see price list	Std. pack	Notes
<b>Links</b>					
	DILMP20 – DILMP80	<b>DILM32-XVB</b> 281227		50 off	For mechanically arranging contactors in combinations. Distance between contactors 0 mm
	DILMP125 – DILMP200	<b>DILM150-XVB</b> 281226		10 off	
<b>Mechanical interlocks</b>					
	DILMP20	<b>DILM12-XMV</b> 281196		1 off	For two contactors with AC or DC operation arranged vertically or horizontally Distance between contactors 0 mm, including contactor connector Mechanical lifespan $2.5 \times 10^6$ operations. Additional auxiliary contact module possible → page 4. DILM150-XMV comes with mounting plate for contactors.
	DILMP32 – DILMP45	<b>DILM32-XMV</b> 281197			
	DILMP63 – DILMP80	<b>DILM65-XMV</b> 281198			
	DILMP125 – DILMP200	<b>DILM150-XMV</b> 240081			
<b>Set of spare parts for mechanical interlock</b>					
	DILMP125 – DILMP200	<b>DILM150-XMVE</b> 107020		1 off	Content: ball for mechanical interlock incl. contactor connector.
<b>IP2X shrouding kit</b>					
	DILMP63 DILMP80	<b>DILM65-XIP2X</b> 106491		8 off	2 shrouds are necessary per phase The shrouding kit consists of 8 shrouds
	DILMP125 DILMP160 DILMP200	<b>DILM150-XIP2X</b> 106492		8 off	

DILMP Contactors

# Ordering Actuating voltages

xStart

DILMP20 ... DILMP200

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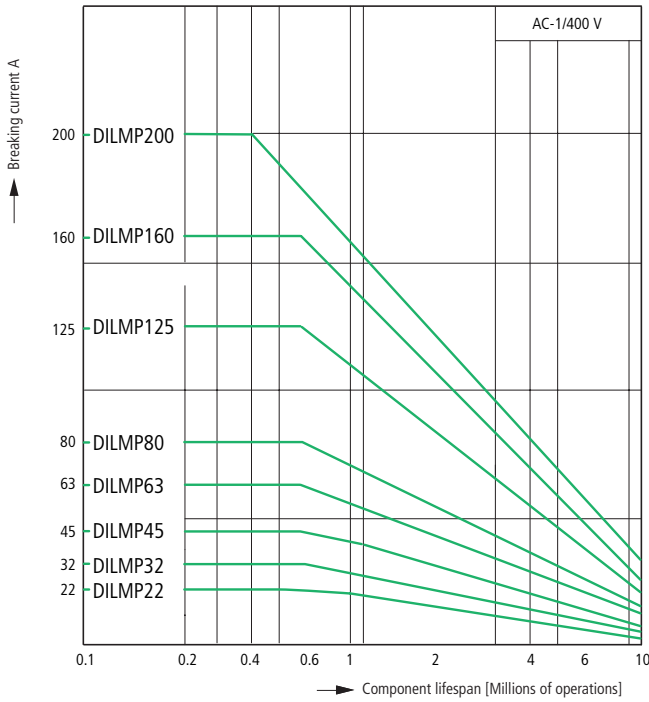
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AC	DILMP20 (...)	DILMP32-10 (...)	DILMP45-10 (...)	DILMP63 (...)	DILMP80 (...)	DILMP125 (...)	DILMP160 (...)	DILMP200 (...)
	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>
<b>Standard voltages</b>	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list
240V 50Hz	–	109798	109827	109856	109885	–	–	–
110V 50Hz 120V 60Hz	276967	109790	109819	109848	109877	–	–	–
230V 50Hz 240V 60Hz	276970	109797	109826	109855	109884	–	–	–
24V 50/60Hz	276974	109799	109828	109857	109886	–	–	–
230 V 50/60 Hz	276978	109796	109825	109883	109883	–	–	–
AC	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>
<b>Standard voltages</b>	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list
RAC 24 <sup>4)</sup>	–	–	–	–	–	109904	109914	109924
RAC 120 <sup>5)</sup>	–	–	–	–	–	109903	109913	109923
RAC 240 <sup>6)</sup>	–	–	–	–	–	109905	109915	109925
AC	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>
Non-standard voltages <sup>2)</sup>	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list
...V 50Hz (12 – 600V) <sup>3)</sup>	276982	109787	109816	109845	109874	–	–	–
...V 60Hz (12 – 600V) <sup>3)</sup>	276983	109788	109817	109846	109875	–	–	–
DC	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>
<b>Standard voltages</b>	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list
24V DC	276985	–	–	–	–	–	–	–
RDC 24 <sup>7)</sup>	–	109811	109840	109869	109898	109910	109920	109930
DC	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>	Article no. <sup>1)</sup>
Non-standard voltages <sup>2)</sup>	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list	Price see price list
...V DC (12 – 250V) <sup>3)</sup>	276990	–	–	–	–	–	–	–

**Notes**<sup>1)</sup> The article number is a combination of part no. and operating voltage<sup>2)</sup> For non-standard voltages, state the actuating voltage selected from the range (...–...V) shown.<sup>3)</sup> Minimum order quantity: 10 off<sup>4)</sup> 24 V 50/60 Hz<sup>5)</sup> 100 – 120 V 50/60 Hz<sup>6)</sup> 190 – 240 V 50/60 Hz<sup>7)</sup> 24 – 27 V DC



### Switching conditions for 4 pole, non-motor loads



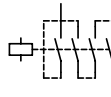
- Operating characteristics
  - Non inductive and slightly inductive loads
- Electrical characteristics:
  - Switch on: 1 × Rated current
  - Switch off: 1 × Rated current
- Utilization category
  - 100 % AC-1
- Typical applications:
  - Electric heat

### Switching of DC currents

----- when necessary  
cable to be supplied by  
customer

**DILMP20 ... DILMP200**  
> 60 V DC

1 pole



2 pole



				DILMP20	DILMP32 DILMP45	DILMP63 DILMP80	DILMP125 DILMP160 DILMP200
<b>General</b>							
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			3600
DC operated		Operations/h		5000			3600
Maximum operating frequency							
electrical (Contactors without overload relay)		Operations/h		600			
Climatic proofing				Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclical, to IEC 60068-2-30			
Ambient temperature	Open		°C	-25...60			
	Enclosed		°C	-25...40			
	Storage		°C	-40...80			
Mounting position, AC- and DC operated							
Mechanical shock resistance (IEC/EN 60068-2-27)							
Half-sinusoidal shock, 10 ms							
Main contacts							
N/O contact			g	10			
Auxiliary contacts							
N/O contact			g	7			
N/C contact			g	5			
Protection type				IP20	IP00		
with accessories						IP20	
Protection against direct contact when actuated from front (IEC 536)				Finger- and back-of-hand proof			
<b>Terminals, screw connection</b>							
Terminal capacity main cable							
Solid			mm <sup>2</sup>	1 × (0.75 – 4) 2 × (0.75 – 2.5)	1 × (0.75 – 16) 2 × (0.75 – 10)	1 × (2.5 – 16) 2 × (2.5 – 16)	–
Flexible with ferrule			mm <sup>2</sup>	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 16) 2 × (0.75 – 10)	1 × (2.5 – 35) 2 × (2.5 – 25)	1 × (10 – 95) 2 × (10 – 70)
Stranded			mm <sup>2</sup>	–	1 × 16	1 × (16 – 50) 2 × (16 – 35)	1 × (16 – 120) 2 × (16 – 95)
Solid or stranded			AWG	18 – 14	18 – 6	12 – 2	8 – 250MCM
Flat conductor		Number of segments × width × thickness	mm	–	–	2 × (6 × 9 × 0.8)	2 × (6 × 16 × 0.8)
Terminal capacity control circuit cables							
Solid			mm <sup>2</sup>	1 × (0.75 – 4) 2 × (0.75 – 2.5)	1 × (0.75 – 4) 2 × (0.75 – 2.5)	1 × (0.75 – 4) 2 × (0.75 – 4)	1 × (0.75 – 4) 2 × (0.75 – 4)
Flexible with ferrule			mm <sup>2</sup>	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)	1 × (0.75 – 2.5) 2 × (0.75 – 2.5)
Solid or stranded			AWG	18 – 14	18 – 14	18 – 14	18 – 14
Main cable connection screw/bolt				M3.5	M5	M6	M10
Tightening torque				Nm	1.2	3	3.3
Control circuit cable connection screw/bolt				M3.5	M3.5	M3.5	M3.5
Tightening torque				Nm	1.2	1.2	1.2
<b>Tool</b>							
Main cable	Pozidriv screwdriver	Size		2	2	2	–
	Hexagon socket-head	SW	mm	–	–	–	5
	Standard screwdriver		mm	0.8 × 5.5 1 × 6	0.8 × 5.5 1 × 6	0.8 × 5.5 1 × 6	–
Control circuit cables	Pozidriv screwdriver	Size		2	2	2	2
	Standard screwdriver		mm	0.8 × 5.5 1 × 6	0.8 × 5.5 1 × 6	0.8 × 5.5 1 × 6	0.8 × 5.5 1 × 6

			DILMP20	DILMP32 DILMP45	DILMP63 DILMP80	DILMP125 DILMP160 DILMP200					
<b>Main conducting paths</b>											
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	400	440						
between the contacts			V AC	400	440						
Making capacity (cos $\phi$ to IEC/EN 60947)	Up to 690 V	A	144	238	350	560	700	1120	1330	1800	
Breaking capacity											
220/230 V			A	120	180	250	400	500	800	950	1150
380/400 V			A	120	180	250	400	500	800	950	1150
500 V			A	100	180	250	400	500	800	950	1150
660/690 V			A	70	120	144	250	296	650	750	800
Short-circuit rating											
Short-circuit protection maximum fuse											
Type "2" coordination											
400 V	gG/gL 500 V	A	20	35	35	63	80	160	160	250	
690 V	gG/gL 690 V	A	20	35	35	50	63	160	160	200	
Type "1" coordination											
400 V	gG/gL 500 V	A	35	63	100	125	160	250	250	250	
690 V	gG/gL 690 V	A	25	50	50	80	80	200	200	200	
<b>AC</b>											
AC-1 duty											
conv. therm. current 3 pole 50 – 60 Hz											
open											
at 40 °C	$I_{th}$	A	22	32	45	63	80	125	160	200	
at 50 °C	$I_{th}$	A	21	30	41	60	76	116	150	188	
at 60 °C	$I_{th}$	A	20	28	39	54	69	108	138	172	
enclosed	$I_{th}$	A	18	27	36	50	64	100	128	160	
Conventional free air thermal current, 1 pole											
open	$I_{th}$	A	60	84	117	162	207	325	415	516	
enclosed	$I_{th}$	A	54	76	105	146	186	292	373	464	
Motor rating											
AC-1 230 V			kW	8	12	16	23	29	45	58	72
AC-1 240 V			kW	9	13	18	25	32	49	63	79
AC-1 380/400 V			kW	14	20	28	39	50	78	100	125
AC-1 415 V			kW	15	22	31	43	55	85	109	137
AC-1 440 V			kW	16	23	33	46	58	90	116	145
AC-1 500 V			kW	18	26	37	52	66	103	132	165
AC-1 690 V			kW	24	35	49	68	87	136	174	217
AC-3 duty											
Rated operational current AC-3 open, 50 – 60 Hz, 3 pole											
220/230 V	$I_e$	A	12	18	25	40	50	80	95	115	
240 V	$I_e$	A	12	18	25	40	50	80	95	115	
380/400 V	$I_e$	A	12	18	25	40	50	80	95	115	
415 V	$I_e$	A	12	18	25	40	50	80	95	115	
440 V	$I_e$	A	12	18	25	40	50	80	95	115	
500 V	$I_e$	A	10	18	25	40	50	80	95	115	
660/690 V	$I_e$	A	7	12	15	25	32	65	80	93	
Motor rating											
220/230 V	$P$	kW	3.5	5	7.5	12.5	15.5	25	30	37	
240V	$P$	kW	4	5.5	8.5	13.5	17	27.5	33	40	
380/400 V	$P$	kW	5.5	7.5	11	18.5	22	37	45	55	
415 V	$P$	kW	7	10	14.5	24	30	48	57	70	
440 V	$P$	kW	7.5	10.5	15.5	25	32	51	60	75	
500 V	$P$	kW	7	12	17.5	28	36	58	70	85	
660/690 V	$P$	kW	6.5	11	14	23	30	63	75	90	

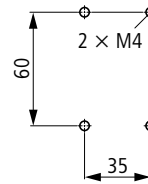
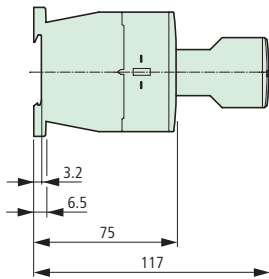
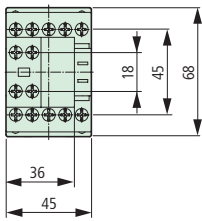
				DILMP20	DILMP32 DILMP45	DILMP63 DILMP80	DILMP125 DILMP160 DILMP200				
<b>DC</b>											
Rated operational current, open											
DC-1 operation											
60 V	$I_e$	A	22	32	45	63	80	125	160	200	
110 V	$I_e$	A	22	32	45	63	80	125	160	200	
220 V	$I_e$	A	6	32	45	63	80	125	160	200	
440 V	$I_e$	A	1.3	3	3	5	5	100	125	150	
DC-3 operation											
60 V	$I_e$	A	20	32	45	63	80	125	160	200	
110 V	$I_e$	A	20	32	45	63	80	125	160	200	
220 V	$I_e$	A	1.5	32	45	63	80	125	160	200	
440 V	$I_e$	A	0.2	6	6	8	8	75	95	115	
DC-5 operation											
60 V	$I_e$	A	20	32	45	63	80	125	160	200	
110 V	$I_e$	A	20	25	32	50	80	125	160	200	
220 V	$I_e$	A	1.5	15	22	38	70	100	125	150	
440 V	$I_e$	A	0.2	4	4	8	8	60	75	90	
<b>Current heat loss (3 pole)</b>											
Current heat loss at $I_{th}$		W	4.7	8.2	12	16	23	29	46	60	
Impedance per pole		mΩ	2.5	2	1.5	1	0.7	0.6	0.6	0.5	
<b>Magnet systems</b>											
Voltage tolerance											
AC operated, 50 Hz	Pick-up	$\times U_c$	0.8...1.1	0.8...1.1	0.8...1.1	0.8...1.1	0.8...1.1	0.8...1.1	0.8...1.1	0.8...1.1	
AC operated, 50/60 Hz		$\times U_c$		0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	0.85 – 1.1	
AC operated	Drop-out	$\times U_c$	0.4...0.6	0.4...0.6	0.4...0.6	0.4...0.6	0.4...0.6	0.4...0.6	0.4...0.6	0.4...0.6	
DC operated <sup>1)</sup>	Pick-up	$\times U_c$	0.8...1.1	0.7...1.2	0.7...1.2	0.7...1.2	0.7...1.2	0.7...1.2	0.7...1.2	0.7...1.2	
DC operated <sup>1)</sup>	Drop-out	$\times U_c$	0.2...0.6	0.2...0.6	0.2...0.6	0.2...0.6	0.2...0.6	0.2...0.6	0.2...0.6	0.2...0.6	
Power consumption of the coil in a cold state and $1.0 \times U_c$											
AC operated, 50/60 Hz	Pick-up	VA	24	50	150	180	180	180	180	180	
AC operated, 50/60 Hz	Pick-up	W	19	40	95	150	150	150	150	150	
AC operated, 50/60 Hz	Sealing	VA	4	8	16	3.1	3.1	3.1	3.1	3.1	
AC operated, 50/60 Hz	Sealing	W	1.2	2.4	4	2.1	2.1	2.1	2.1	2.1	
DC operated <sup>1)</sup>	Pick-up	W	4.5	12	24	149	149	149	149	149	
DC operated <sup>1)</sup>	Sealing	W	4.5	0.5	0.5	2.1	2.1	2.1	2.1	2.1	
Duty factor		% DF	100								
Switching times at 100 % $U_c$ (approximate values)											
Main contacts											
AC operated											
Closing delay		ms	15...21	16...22	12...18	28...33	28...33	28...33	28...33	28...33	
Opening delay		ms	9...18	8...14	8...13	35...41	35...41	35...41	35...41	35...41	
DC operated <sup>1)</sup>											
Closing delay		ms	31	47	54	35	35	35	35	35	
Opening delay		ms	12	30	24	30	30	30	30	30	
Arcing time		ms	10	10	10	15	15	15	15	15	
Permissible residual current with actuation of A1 – A2 by the electronics (with 0 signal).		mA	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	

## Notes

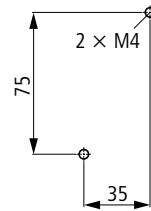
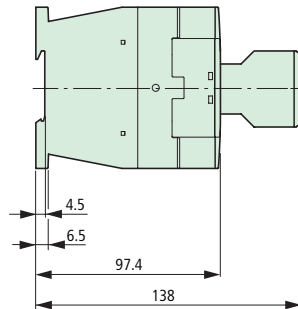
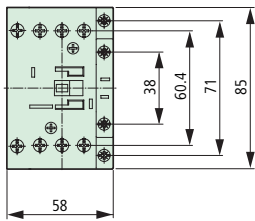
<sup>1)</sup> At least double-pulse bridge rectifier

**Contactor with auxiliary contact module**

DILMP20



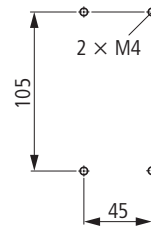
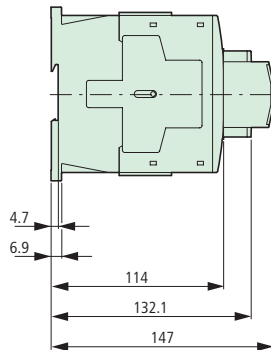
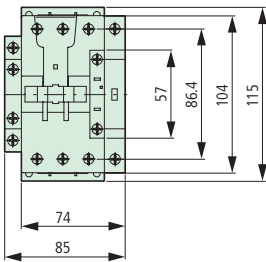
DILMP32  
DILMP45



distance at side to earthed parts: 6 mm

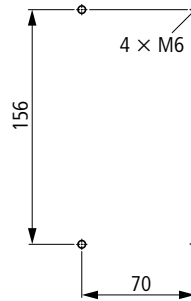
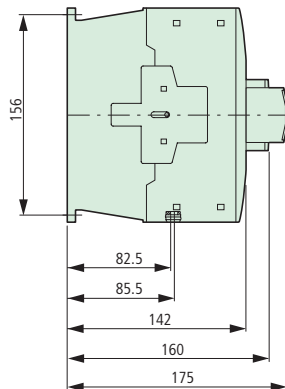
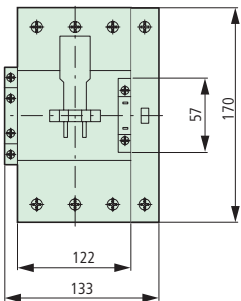
**Contactors**

DILMP63  
DILMP80



distance at side to earthed parts: 6 mm

DILMP125  
DILMP160  
DILMP200



distance at side to earthed parts: 10 mm



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