

ICON 185-500A Contactors

High capacity  
High performance  
ICON 185-500A contactors



**EATON**

*Powering Business Worldwide*



# Energizing a world that demands more.

## We deliver:

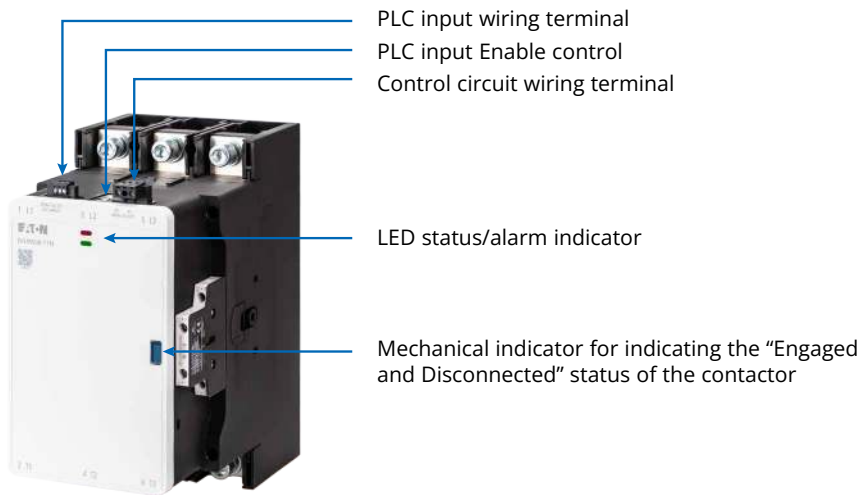
- **Electrical solutions** that use less energy, improve power reliability and make the places we live and work safer and more comfortable
- **Hydraulic and electrical solutions** that enable machines to deliver more productivity without wasting power
- **Aerospace solutions** that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- **Vehicle drivetrain and powertrain solutions** that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

Discover today's Eaton.

**EATON**

*Powering Business Worldwide*

### ICON 185-500A contactors



Technical overview	4
Basic devices	6
Accessories	8
Actuating voltages	12
Contact travel	13
Technical data	14
Characteristic curves	24
Dimensions	27

### Standards and Certifications

- GB/T 14048
- IEC/EN 60947
- CCC
- CE

## Eaton's ICON185-500A Contactors

The Eaton's ICON 185-500A contactors represent a significant upgrade and expansion of Eaton's new-generation motor control product platform, the ICON family. Benefiting from over a century of successful product development experience accumulated by Eaton Electrical, these products continue Eaton's consistent pursuit of excellence in quality. They are also crafted with forward-thinking innovation and digital, intelligent concepts.

The ICON 185-500A contactor series covers currents from 185A to 500A at AC-3. These products not only feature a compact structure, outstanding performance, and high reliability, but also integrate contactor status, fault display, and contactor life indication functions. This provides customers with convenient and intuitive operational status monitoring and predictive maintenance capabilities, helping them improve production efficiency, ensure production continuity, significantly reduce maintenance and downtime, and ultimately deliver greater returns on investment.

### High Durability

The continuous operation of equipment and production lines demands that all product component possess a high level of reliability. The ICON 185-500A contactors not only achieve an extremely long service life under the AC-3 utilization category but also demonstrate excellent performance and longevity under the AC-1 and AC-4 categories. These products can meet the load application needs of various industries and equipment.

### Ease of Control

The ICON 185-500A contactors support universal AC and DC control coils for a variety of voltage levels. The starting methods include conventional A1-A2 coil terminal control and direct control using PLC or low-power master electrical signals. This eliminates the need for additional intermediate steps, providing great convenience to customers while effectively reducing system complexity and overall costs.

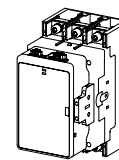
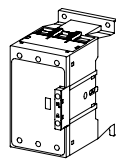
### Intelligent Innovation for the Future

The ICON 185-500A contactors feature advanced built-in contactor fault and life diagnostic functions. The two LEDs on the front of the product provide intuitive feedback on the contactor's operating status, fault information, and life diagnosis, thereby laying the foundation for predictive maintenance. This helps customers significantly reduce downtime and maintenance time, further enhancing their production efficiency.

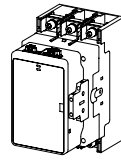
# ICON 185-500A Contactors

## Technical overview, 3P

### Quick Selection Table of ICON 185-500A



DIL Rated operating voltage	Baseline version		Advanced version	
	M 185N	M 205N	M 185-11N	M 205-11N
	kW	kW	kW	kW
<b>AC-3</b>				
Three-phase motor Rated power 50/60 Hz				
220-230V	55	61	55	61
<b>380-400V</b>	<b>90</b>	<b>100</b>	<b>90</b>	<b>100</b>
440V	115	127	115	127
500V	132	146	132	146
660-690 V	140	140	140	140
1000V	-	-	108	108
<b>AC-4</b>				
Three-phase motor Rated power 50/60 Hz				
220-230V	21	21	21	21
<b>380-400V</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>37</b>
440V	41	41	41	41
500V	46	46	46	46
660-690 V	55	55	55	55
1000V	-	-	36	36
<b>AC-1</b>				
Rated power with resistive load At 40°C				
220-230V	100	100	110	110
<b>380-400V</b>	<b>174</b>	<b>174</b>	<b>190</b>	<b>190</b>
440V	193	193	210	210
500V	220	220	240	240
660-690 V	303	303	330	330
1000V	-	-	480	480



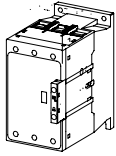
<b>M 225-11N</b>	<b>M 250-11N</b>	<b>M 300-11N</b>	<b>M 400-11N</b>	<b>M 500-11N</b>
<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>
70	75	90	125	155
<b>110</b>	<b>132</b>	<b>160</b>	<b>200</b>	<b>250</b>
138	157	185	250	315
160	180	215	290	360
150	172	195	344	344
108	108	132	132	132
26	26	31	42	51
<b>45</b>	<b>45</b>	<b>55</b>	<b>75</b>	<b>90</b>
49	49	60	81	98
56	56	68	92	111
74	74	89	106	115
45	45	54	77	77
110	120	160	200	240
<b>190</b>	<b>210</b>	<b>280</b>	<b>350</b>	<b>420</b>
210	230	300	380	460
240	260	350	430	520
330	360	480	600	720
480	520	690	870	1040

# ICON 185-500A Contactors

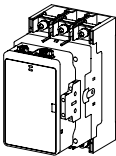
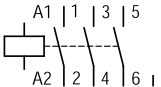
## Basic devices

### Basic Devices of ICON 185-500A

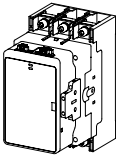
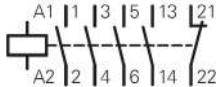
Rated operating current	Three-phase motor Max power, 50/60Hz								Conventional Wiring thermal current I <sub>th</sub> =I <sub>e</sub> AC-1,+40°C Open
	AC-3				AC-4				
<b>380V</b>	220V	380V	660V	1000V	220V	380V	660V	1000V	A
<b>400V</b>	230V	400V	690V		230V	400V	690V		
<b>I<sub>e</sub></b>	P	P	P	P	P	P	P	P	
<b>A</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	<b>kW</b>	



DILM185/205N		Baseline version							
185	55	90	140	-	21	37	55	-	280
205	61	100	140	-	21	37	55	-	280



DILM...-11N		Advanced version							
185	55	90	140	108	21	37	55	36	305
205	61	100	140	108	21	37	55	36	305
225	70	110	150	108	26	45	74	45	305
250	75	132	172	108	26	45	74	45	330
300	90	160	195	132	31	55	89	54	440
400	125	200	344	132	42	75	106	77	550
500	155	250	344	132	51	90	115	77	700



**Part No.**  
Article No.

**Unit per package**

**Note**

**DILM185N(RAC240)** 1 off  
CMN00805

**DILM205N(RAC240)**  
CMN00812

**DILM185-11N(AC/DC220)** 1 off  
CMN00820

**DILM205-11N(AC/DC220)**  
CMN00825

**DILM225-11N(AC/DC220)**  
CMN00830

**DILM250-11N(AC/DC220)**  
CMN00835

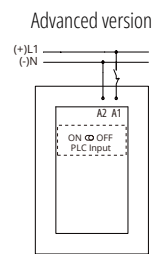
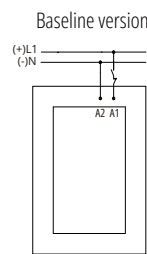
**DILM300-11N(AC/DC220)**  
CMN00840

**DILM400-11N(AC/DC220)**  
CMN00845

**DILM500-11N(AC/DC220)**  
CMN00850

**Conventional method**

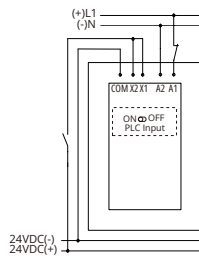
Voltage is directly applied to Terminal A1/A2



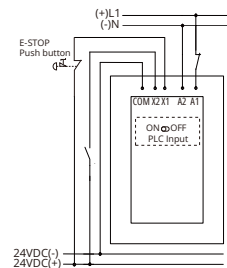
**PLC control (only for advanced version)**

Direct PLC control

Terminals X1 and X2 needs to be short circuited




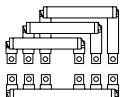
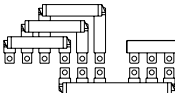

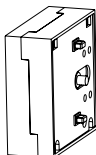
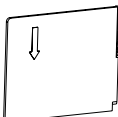
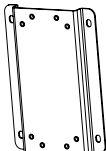
PLC control under safety procedure




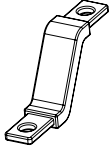
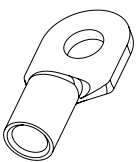
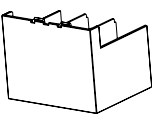
# ICON 185-500A Contactors

## Accessories

### Accessories of ICON 185-500A

Applicable contactor	Wiring terminal marking	Part No. Article No.	Unit per package	Note
<b>Star-point bridge</b>				
	DILM185-11N-DILM300-11N	<b>DILM300N-XS1</b> CMN00857	1off	
	DILM400-11N/DILM500-11N	<b>DILM500N-XS1</b> CMN00858	1off	
<b>Reversing kits</b>				
	DILM185-11N-DILM300-11N	<b>DILM300N-XRL</b> CMN00854	1off	One set of kits consists of the following two assemblies: 1. Assembly for connecting the incoming line 2. Assembly for connecting the outgoing line
	DILM400-11N/DILM500-11N	<b>DILM500N-XRL</b> CMN00856	1off	
<b>Star-delta wiring kits</b>				
用 For main circuit wiring in star-delta combinations, includes star point bridge				
	DILM185-11N/DILM205-11N/ DILM225-11N/DILM250-11N/ DILM300-11N	<b>DILM300N-XSL</b> CMN00853	1off	A set of kits consists of the following three assemblies: 1. Assembly for connecting the main- delta contactor 2. Assembly for connecting the delta- star contactor 3. Star point bridge
	DILM400-11N/DILM500-11N	<b>DILM500N-XSL</b> CMN00855	1off	
<b>Busbar</b>				
	DILM185-11N/ DILM205-11N	<b>DILM250N-XP1</b> CMN00876	1off	• In an open environment, for AC-1 loads, the rated current applicable to 3-pole contactors can be increased to 2.5 times when connected in parallel.
	DILM185N/ DILM205N	<b>DILM205N-XP1</b> CMN00877	1off	
<b>Mechanical interlocks</b>				
	DILM185-11N,DILM205-11N, DILM225-11N,DILM250-11N, DILM300-11N,DILM400-11N, DILM500-11N	<b>DILM500N-XMV</b> CMN00852	1off	<ul style="list-style-type: none"> <li>• For interlocking two contactors with the same or different magnetic systems. The contactors can be mounted vertically or horizontally, with a mechanical life of 2x10<sup>6</sup> operations.</li> <li>• Auxiliary contact modules cannot be installed between the mechanical interlock and contactors.</li> <li>• Contactor spacing is 32.1mm.</li> </ul>
<b>Interphase barrier</b>				
	DILM185N/DILM205N	<b>DILM205N-XKP</b> CMN00878	1off	• A set of kits includes 2 separators as shown in the picture.
	DILM185-11N-DILM500-11N	<b>DILM500N-XKP</b> CMN00880	1off	
<b>Mounting adapter plate</b>				
	DILM185N-DILM205N, DILM185-11N-DILM300-11N	<b>DILM300N-XCB</b> CMN00881	1off	<ul style="list-style-type: none"> <li>• Mounting adapter plate for replacing DILM series contactors with DILM...N series contactors.</li> <li>• Allows for quick and easy replacement in existing installations.</li> </ul>
	DILM400-11N-DILM500-11N	<b>DILM500N-XCB</b> CMN00882	1off	

### Accessories of ICON 185-500A

Applicable contactor	Wiring terminal marking	Part No. Article No.	Unit per package	Note
<b>Extension wiring boards</b>				
	DILM185-11N	<b>DILM300N-XBE</b> CMN00859	1off	<ul style="list-style-type: none"> <li>A set of kits includes 2 sets of wiring boards as shown in the picture, that is, 3 incoming boards and 3 outgoing boards.</li> </ul>
	DILM205-11N			
	DILM225-11N			
	DILM250-11N			
	DILM300-11N			
DILM400-11N	<b>DILM500N-XBE</b> CMN00860	1off		
DILM500-11N				
<b>Space extension wiring board</b>				
	DILM185-11N	<b>DILM300N-XBS</b> CMN00861	1off	<ul style="list-style-type: none"> <li>A set of kits includes 6 wiring boards as shown in the picture.</li> </ul>
	DILM205-11N			
	DILM225-11N			
	DILM250-11N			
	DILM300-11N			
<b>Cable wiring terminals</b>				
	DILM185-11N	<b>DILM500N-XIT50</b> CMN00863	1off	Conductor cross-section: 50mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
	DILM205-11N			
	DILM225-11N	<b>DILM500N-XIT70</b> CMN00864	1off	Conductor cross-section: 70mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
	DILM250-11N			
	DILM300-11N	<b>DILM500N-XIT95</b> CMN00865	1off	Conductor cross-section: 95mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
	DILM400-11N			
	DILM500-11N	<b>DILM500N-XIT120</b> CMN00866	1off	Conductor cross-section: 120mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
	DILM500-11N			
		<b>DILM500N-XIT150</b> CMN00867	1off	Conductor cross-section: 150mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
		<b>DILM500N-XIT185</b> CMN00868	1off	Conductor cross-section: 185mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.
	<b>DILM500N-XIT240</b> CMN00869	1off	Conductor cross-section: 240mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.	
DILM400-11N	<b>DILM500N-X2T150</b> CMN00870	1off	Conductor cross-section: 150mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.	
DILM500-11N				
	<b>DILM500N-X2T185</b> CMN00871	1off	Conductor cross-section: 185mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.	
	<b>DILM500N-X2T240</b> CMN00872	1off	Conductor cross-section: 240mm <sup>2</sup> A set of kits includes 6 terminals as shown in the picture.	
<b>Terminal protective cover</b>				
	DILM185-11N	<b>DILM300N-XHB</b> CMN00874	1off	Prevents direct vertical contact with the terminal from the front.
	DILM205-11N			
	DILM225-11N			
	DILM250-11N			
	DILM300-11N			
DILM400-11N	<b>DILM500N-XHB</b> CMN00875	1off		
DILM500-11N				

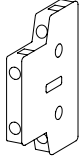
# ICON 185-500A Contactors

## Accessories

### Side Mounted Auxiliary Contacts, 2-Pole

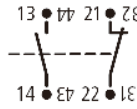
Conventional thermal current I <sub>th</sub> =I <sub>e</sub> AC-1 Open A	Contact M=Normally Open (NO) contact B = Normally Closed (NC) contact	Wiring terminal marking	Basic devices for use with	Part No. Article No.	Unit per package
--	--	-------------------------	-------------------------------	-------------------------	------------------

#### Inside mounting



10

1M 1B

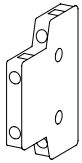


DILM185-11N-  
DILM500-11N

**DILM520-XHI11-SI**  
CMN00801

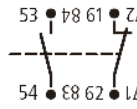
1off

#### Outside mounting



10

1M 1B



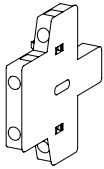
DILM185-11N-  
DILM500-11N

**DILM520-XHI11-SA**  
CMN00802

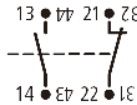
**Side Mounted Auxiliary Contact, 2-Pole**

Conventional thermal current I <sub>th</sub> =I <sub>e</sub> AC-1 Open A	Contact M=Normally Open (NO) contact B = Normally Closed (NC) contact	Wiring terminal marking	Basic devices for use with	Part No. Article No.	Unit per package
--	--	-------------------------	-------------------------------	-------------------------	------------------

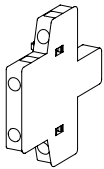
**Inside mounting**



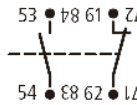
10	1M 1B		DILM185N, DILM205N	<b>DILM1000C-XHI11-SI</b> 105694	1 off
----	-------	--	-----------------------	-------------------------------------	-------



**Outside mounting**

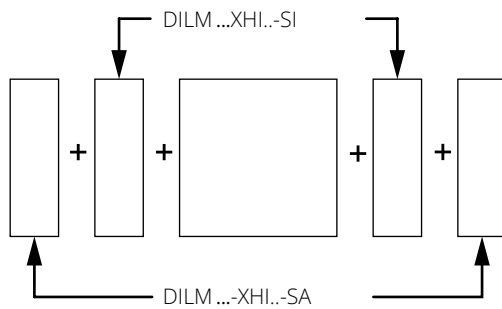


10	1M 1B		DILM185N, DILM205N	<b>DILM1000C-XHI11-SA</b> 105695	
----	-------	--	-----------------------	-------------------------------------	--



**Note:**

**Side mounted auxiliary contact combination**



# ICON 185-500A Contactors

## Actuating voltages

### Basic device (Baseline version)

	DILM185N(...)	DILM205N(...)
<b>AC</b>		
Actuating voltages	Article No. <sup>1)</sup>	Article No. <sup>1)</sup>
<b>RAC 24<sup>2)</sup></b>	CMN00803	CMN00810
<b>RAC 120<sup>3)</sup></b>	CMN00804	CMN00811
<b>RAC 240<sup>4)</sup></b>	CMN00805	CMN00812
<b>RAC 440<sup>5)</sup></b>	CMN00806	CMN00813

### Basic devices (Baseline version)

	DILM185N(...)	DILM205N(...)
<b>DC</b>		
Actuating voltages	Article No. <sup>1)</sup>	Article No. <sup>1)</sup>
<b>RDC 24<sup>6)</sup></b>	CMN00807	CMN00814
<b>RDC 130<sup>7)</sup></b>	CMN00808	CMN00815
<b>RDC 240<sup>8)</sup></b>	CMN00809	CMN00816

### Basic devices (Advanced version)

	DILM185-11N(...)	DILM205-11N(...)	DILM225-11N(...)	DILM250-11N(...)	DILM300-11N(...)	DILM400-11N(...)	DILM500-11N(...)
Actuating voltages	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>AC/DC 24</b>	CMN00817	CMN00822	CMN00827	CMN00832	CMN00837	CMN00842	CMN00847
<b>AC/DC 48</b>	CMN00818	CMN00823	CMN00828	CMN00833	CMN00838	CMN00843	CMN00848
<b>AC/DC 110</b>	CMN00819	CMN00824	CMN00829	CMN00834	CMN00839	CMN00844	CMN00849
<b>AC/DC 220</b>	CMN00820	CMN00825	CMN00830	CMN00835	CMN00840	CMN00845	CMN00850
<b>AC/DC 400</b>	CMN00821	CMN00826	CMN00831	CMN00836	CMN00841	CMN00846	CMN00851

#### Notes

- 1) The article No. is composed of Part No. and actuating voltage.
- 2) 24V 50/60Hz
- 3) 100-120V 50/60Hz
- 4) 190-240V 50/60Hz
- 5) 380-440V 50/60Hz
- 6) 24-27V DC
- 7) 110-130V DC
- 8) 200-240V DC

**Contact Travel**

The following is the contact travel of the main and auxiliary contacts of the contactor under no-load conditions, without considering errors.



		<b>X1</b>	<b>X2</b>
DILM185N-DILM205N	NO contact	8	11
DILM1000C-XHI	NO contact	8.95	11
	NC contact	7.1	11
DILM185-11N-DILM300-11N	NO contact	10	13
	NO contact	11	13
DILM520-XHI	NC contact	9	13
	NO contact	10	14
DILM400-11N-DILM500-11N	NO contact	12	14
	NC contact	10	14

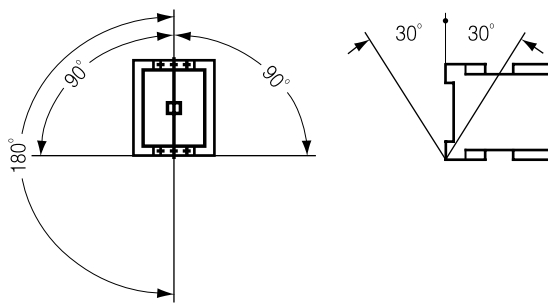
# ICON 185-500A Contactors

## Technical data

### Technical Data

			DILM185N	DILM205N
<b>General</b>				
Standards			IEC/EN 60 947,GB/T14048	
Lifespan, mechanical				
AC	Operations	x 10 <sup>6</sup>	8	8
DC	Operations	x 10 <sup>6</sup>	8	8
Mechanical operating max frequency			2400	2400
Max. electrical operating frequency			See P26	
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30	
Ambient temperature				
Open	min./max.	°C	-25/+60	-25/+60
Enclosed	min./max.	°C	-25/+40	-25/+40
storage	min./max.	°C	-40/+80	-40/+80

### Mounting positions



Impact resistance strength  
(IEC/EN60068-2-27)  
Half-sine wave vibration 10ms

<b>Main circuit</b>				
NO contact	g		10	10
<b>Auxiliary contact</b>				
NO contact	g		7	7
NC contact	g		5	5
Protection degree	IP		00	00
Direct contact protection during front operation (IEC 536)			Finger proof	
Weight	kg		2.4	2.4
Dimensions			See P27	

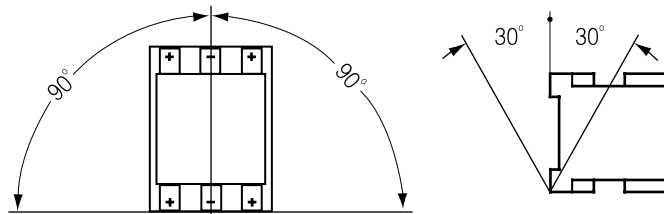
DILM185-11N	DILM205-11N	DILM225-11N	DILM250-11N	DILM300-11N	DILM400-11N	DILM500-11N
IEC/EN 60 947,GB/T14048						
8	8	8	8	8	8	8
8	8	8	8	8	8	8
2400	2400	2400	2400	2400	2400	2400

See P26

Damp heat, constant, to IEC 60068-2-78

Damp heat, cyclic, to IEC 60068-2-30

-25/+60	-25/+60	-25/+60	-25/+60	-25/+60	-25/+60	-25/+60
-25/+40	-25/+40	-25/+40	-25/+40	-25/+40	-25/+40	-25/+40
-40/+80	-40/+80	-40/+80	-40/+80	-40/+80	-40/+80	-40/+80



10	10	10	10	10	10	10
10	10	10	10	10	10	10
8	8	8	8	8	8	8
00	00	00	00	00	00	00

Finger proof

4	4	4	4	4	7	7
---	---	---	---	---	---	---

See P27

# ICON 185-500A Contactors

## Technical data

### Technical Data

			DILM185N	DILM205N
<b>Conductor cross-section</b>				
<b>Main circuit cable</b>				
Terminal bars	Width	mm	20	20
Busbar	Cross-section max	mm <sup>2</sup>	20x6	20x6
Wiring bolt			M8	M8
Bolt torque		Nm	14	14
<b>Control circuit</b>				
A1/A2				
Solid wire		mm <sup>2</sup>	1x(0.75-4) 2x(0.75-4)	1x(0.75-4) 2x(0.75-4)
Flexible wire with metal ferrule		mm <sup>2</sup>	1x(0.75-2.5) 2x(0.75-2.5)	1x(0.75-2.5) 2x(0.75-2.5)
Solid or stranded wire		AWG	18-14	18-14
Wiring terminal bolt			M3.5	M3.5
Tightening torque		Nm	1.2	1.2
X1/X2/COM				
Solid wire		mm <sup>2</sup>	/	/
Flexible wire with metal ferrule		mm <sup>2</sup>	/	/
Solid or stranded wire		AWG	/	/
Wiring terminal bolt			/	/
Tightening torque		Nm	/	/
<b>Tools</b>				
Main circuit				
Allen wrench		size	5	5
Control circuit				
Screwdriver specification -A1/A2		size/mm	PZ2	PZ2
Screwdriver specification -X1/X2/COM		size/mm	/	/

<b>DILM185-11N</b>	<b>DILM205-11N</b>	<b>DILM225-11N</b>	<b>DILM250-11N</b>	<b>DILM300-11N</b>	<b>DILM400-11N</b>	<b>DILM500-11N</b>
20	20	20	20	20	22	30
26x8	26x8	26x8	26x8	26x8	33x10	33x10
M10	M10	M10	M10	M10	M10	M10
24	24	24	24	24	24	24
1x(0.2-4)	1x(0.2-4)	1x(0.2-4)	1x(0.2-4)	1x(0.2-4)	1x(0.2-4)	1x(0.2-4)
2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-2.5)	2x(0.2-1.5)	2x(0.2-1.5)
1x(0.2-2.5)	1x(0.2-2.5)	1x(0.2-2.5)	1x(0.2-2.5)	1x(0.2-2.5)	1x(0.2-2.5)	1x(0.2-2.5)
2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)	2x(0.2-1.5)
28-12	28-12	28-12	2x28	28-12	28-12	28-12
M2.5	M2.5	M2.5	M2.5	M2.5	M2.5	M2.5
0.5	0.5	0.5	0.5	0.5	0.5	0.5
1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)
2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)
1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)	1x(0.2-1.5)
2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)	2x(0.2-0.75)
28-14	28-14	28-14	28-14	28-14	28-14	28-14
M2	M2	M2	M2	M2	M2	M2
0.25	0.25	0.25	0.25	0.25	0.25	0.25
8	8	8	8	8	8	8
0.6x3.5	0.6x3.5	0.6x3.5	0.6x3.5	0.6x3.5	0.6x3.5	0.6x3.5
0.4x2.5	0.4x2.5	0.4x2.5	0.4x2.5	0.4x2.5	0.4x2.5	0.4x2.5

# ICON 185-500A Contactors

## Technical data

### Technical Data

			DILM185N	DILM205N
<b>Main circuit</b>				
Rated impulse withstand voltage	U <sub>imp</sub>	V-	8000	8000
Overvoltage category			III	III
Pollution degree			3	3
Rated insulation voltage	U <sub>i</sub>	V-	1000	1000
Rated operating voltage	U <sub>e</sub>	V-	1000	1000
Making capacity				
cos φ according to IIEC/EN 60947	Up to 690 V	A	2700	2700
Breaking capacity				
cos φ according to IIEC/EN 60947	220/230V	A	2250	2250
	380/400V	A	2250	2250
	500V	A	2250	2250
	660/690V	A	2250	2250
	1000V	A	/	/
Lifespan, electrical			See P24-25	
Maximum operating frequency			See P26	
Short circuit rating				
Maximum rated fuse for short circuit protection				
Type 2 coordination				
400V	Gg/gL 500V	A	400	400
690V	Gg/gL 690V	A	250	250
1000V	Gg/gL 1000V	A	/	/
Type 1 coordination				
400V	Gg/gL 500V	A	400	400
690V	Gg/gL 690V	A	250	250
1000V	Gg/gL 1000V	A	/	/

<b>DILM185-11N</b>	<b>DILM205-11N</b>	<b>DILM225-11N</b>	<b>DILM250-11N</b>	<b>DILM300-11N</b>	<b>DILM400-11N</b>	<b>DILM500-11N</b>
8000	8000	8000	8000	8000	8000	8000
III	III	III	III	III	III	III
3	3	3	3	3	3	3
1000	1000	1000	1000	1000	1000	1000
1000	1000	1000	1000	1000	1000	1000
2700	2700	2700	3000	3600	5500	5500
2250	2250	2250	2500	3000	5000	5000
2250	2250	2250	2500	3000	5000	5000
2250	2250	2250	2500	3000	5000	5000
2250	2250	2250	2500	3000	5000	5000
760	760	760	760	950	950	950
See P24-25						
See P26						
250	250	250	315	315	500	500
250	250	250	315	315	500	500
160	160	160	160	160	200	200
400	400	400	400	400	630	630
315	315	315	400	400	630	630
200	200	200	200	200	250	250

# ICON 185-500A Contactors

## Technical data

### Technical Data

		DILM185N		DILM205N		DILM185-11N	
<b>AC voltage</b>							
<b>AC-1 operation</b>							
Conventional thermal current I <sub>th</sub> = Rated operational current (I <sub>e</sub> ), Open 50/60 Hz							
3-pole	Open	+40°C	A	280	280	305	
		+60°C	A	255	255	278	
	Enclosed		A	203	203	222	
1-pole	Open		A	570	570	620	
	Enclosed		A	520	520	566	
<b>AC-3 operation</b>							
Conventional thermal current I <sub>e</sub> Open, 50/60 Hz 3-pole		220 /230 V	A	185	205	185	
		240V	A	185	205	185	
		<b>380 /400 V</b>	<b>A</b>	<b>185</b>	<b>205</b>	<b>185</b>	
		415V	A	185	205	185	
		440V	A	185	205	185	
		500V	A	185	205	185	
		660 /690 V	A	150	150	150	
		1000 V	A	/	/	76	
Rated power P <sub>n</sub>		220 /230 V	kW	55	61	55	
		240V	kW	62	69	62	
		<b>380 /400 V</b>	<b>kW</b>	<b>90</b>	<b>100</b>	<b>90</b>	
		415V	kW	110	122	110	
		440V	kW	115	127	115	
		500V	kW	132	146	132	
		660 /690 V	kW	140	140	140	
		1000 V	kW	/	/	108	
<b>AC-4 operation</b>							
Conventional thermal current I <sub>e</sub> Open, 50/60 Hz 3-pole		220 /230 V	A	66	66	66	
		240V	A	66	66	66	
		<b>380 /400 V</b>	<b>A</b>	<b>66</b>	<b>66</b>	<b>66</b>	
		415V	A	66	66	66	
		440V	A	66	66	66	
		500V	A	66	66	66	
		660 /690 V	A	57	57	57	
		1000 V	A	/	/	26	
Rated power P <sub>n</sub>		220 /230 V	kW	21	21	21	
		240V	kW	22	22	22	
		<b>380 /400 V</b>	<b>kW</b>	<b>37</b>	<b>37</b>	<b>37</b>	
		415V	kW	38	38	38	
		440V	kW	41	41	41	
		500V	kW	46	46	46	
		660 /690 V	kW	55	55	55	
		1000 V	kW	/	/	36	

DILM205-11N	DILM225-11N	DILM250-11N	DILM300-11N	DILM400-11N	DILM500-11N
305	305	330	440	550	700
278	278	300	400	500	600
222	222	240	320	400	508
620	620	670	894	1118	1422
566	566	612	816	1020	1298
205	225	250	300	400	500
205	225	250	300	400	500
<b>205</b>	<b>225</b>	<b>250</b>	<b>300</b>	<b>400</b>	<b>500</b>
205	225	250	300	400	500
205	225	250	300	400	500
205	225	250	300	400	500
150	160	185	210	360	360
76	76	76	95	95	95
61	70	75	90	125	155
69	75	85	100	132	170
<b>100</b>	<b>110</b>	<b>132</b>	<b>160</b>	<b>200</b>	<b>250</b>
122	132	148	180	240	300
127	138	157	185	250	315
146	160	180	215	290	360
140	150	172	195	344	344
108	108	108	132	132	132
66	80	80	97	132	160
66	80	80	97	132	160
<b>66</b>	<b>80</b>	<b>80</b>	<b>97</b>	<b>132</b>	<b>160</b>
66	80	80	97	132	160
66	80	80	97	132	160
66	80	80	97	132	160
57	77	77	93	110	120
26	32	32	39	55	55
21	26	26	31	42	51
22	27	27	33	44	54
<b>37</b>	<b>45</b>	<b>45</b>	<b>55</b>	<b>75</b>	<b>90</b>
38	46	46	56	76	92
41	49	49	60	81	98
46	56	56	68	92	111
55	74	74	89	106	115
36	45	45	54	77	77

# ICON 185-500A Contactors

## Technical data

### Technical Data

			DILM185N	DILM205N	DILM185-11N	DILM205-1N	DILM225-11N
<b>Electromagnetic system</b>							
Pick-up and drop-out voltage range <sup>1)</sup>							
AC operation	Pick-up	xUc	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1
AC operation	Drop-out	xUc	0.25 – 0.6	0.25 – 0.6	0.1-0.6	0.1-0.6	0.1-0.6
DC operation	Pick-up	xUc	0.7 – 1.2 <sup>2)</sup>	0.7 – 1.2 <sup>2)</sup>	0.8-1.25	0.8-1.25	0.8-1.25
DC operation	Drop-out	xUc	0.15 – 0.6	0.15 – 0.6	0.1-0.6	0.1-0.6	0.1-0.6
<b>Coil power consumption</b>							
Average power consumption at cold state and 1.0xUc							
AC operation	Pick-up	VA	170	170	540	540	540
DC operation	Pick-up	W	149	149	380	380	380
AC operation	Maintain	VA	3.1	3.1	12.4	12.4	12.4
DC operation	Maintain	W	2.1	2.1	7.8	7.8	7.8
Duty cycle		%DF	100	100	100	100	100
<b>Actuating time at 100% Uc (approximate value)</b>							
AC operation	Pick-up delay	ms	< 33	< 33	< 70	< 70	< 70
AC operation	Drop-out delay	ms	< 41	< 41	< 50	< 50	< 50
DC operation	Pick-up delay	ms	< 35	< 35	< 70	< 70	< 70
DC operation	Drop-out delay	ms	< 30	< 30	< 50	< 50	< 50
<b>Electromagnetic compatibility (EMC)</b>							
EMC	This produced is intended for use in industrial environments (Environment 2) If used in residential environments (Environment 1), it may cause electrical interference, and appropriate suppression measures must be taken.						

- Notes
- 1) See P12 for U<sub>cmin</sub> and U<sub>cmax</sub>
  - 2) RDC 24 (U<sub>min</sub> 24 V DC/U<sub>max</sub> 27 V DC)  
RDC 130 (U<sub>min</sub> 110 V DC/U<sub>max</sub> 130 V DC)  
RDC 240 (U<sub>min</sub> 200 V DC/U<sub>max</sub> 240 V DC)  
For example:  
U<sub>c</sub>=0.7 X U<sub>min</sub>...1.2 X U<sub>max</sub>

<b>DILM300-11N</b>	<b>DILM400-11N</b>	<b>DILM500-11N</b>
0.8-1.1	0.8-1.1	0.8-1.1
0.1-0.6	0.1-0.6	0.1-0.6
0.8-1.25	0.8-1.25	0.8-1.25
0.1-0.6	0.1-0.6	0.1-0.6
540	750	750
380	660	660
12.4	15.5	15.5
7.8	9.3	9.3
100	100	100
< 70	< 70	< 70
< 50	< 50	< 50
< 70	< 70	< 70
< 50	< 50	< 50

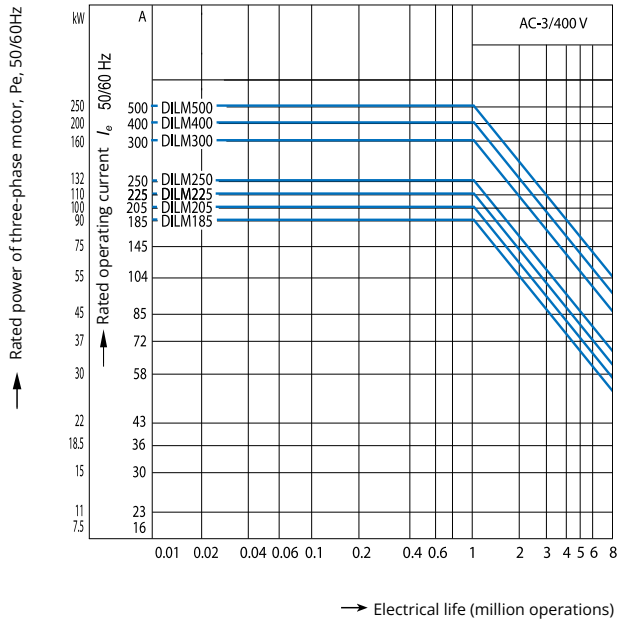
This product is intended for use in industrial environments (Environment 2)  
 If used in residential environments (Environment 1), it may cause electrical interference, and appropriate suppression measures must be taken.

# ICON 185-500A Contactors

## Characteristic curves

### Normal Operating Conditions

Squirrel cage motor



#### Operating characteristics

Start: From standstill

Stop: After reaching full speed

#### Electrical characteristics

Making: Up to 6x motor's rated current

Breaking: 1x motor's rated current

#### Utilization category

100% AC-3

#### Typical applications

Compressor

Pump

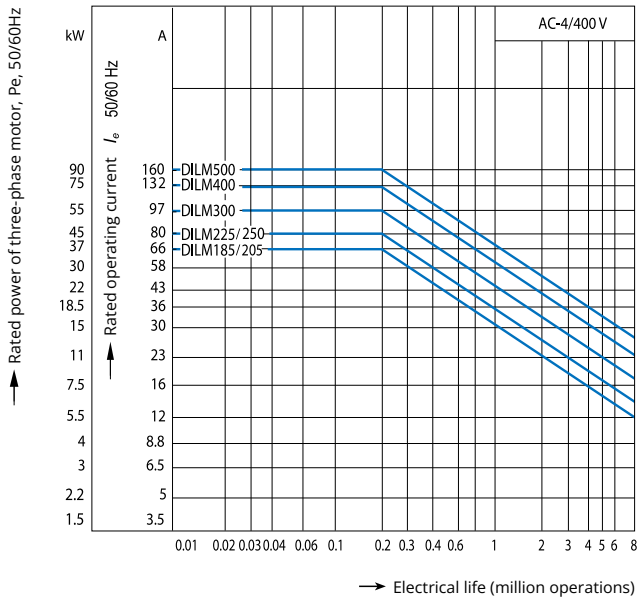
Fan

Bucket elevator

General drive equipment for processing and handling machinery

### Extreme Operating Conditions

Squirrel cage motor



#### Operating characteristics

Jogging, plugging braking, reversing

#### Electrical characteristics

Making: Up to 6x motor's rated current

Breaking: 6x motor's rated current

#### Utilization category

100% AC-4

#### Typical applications

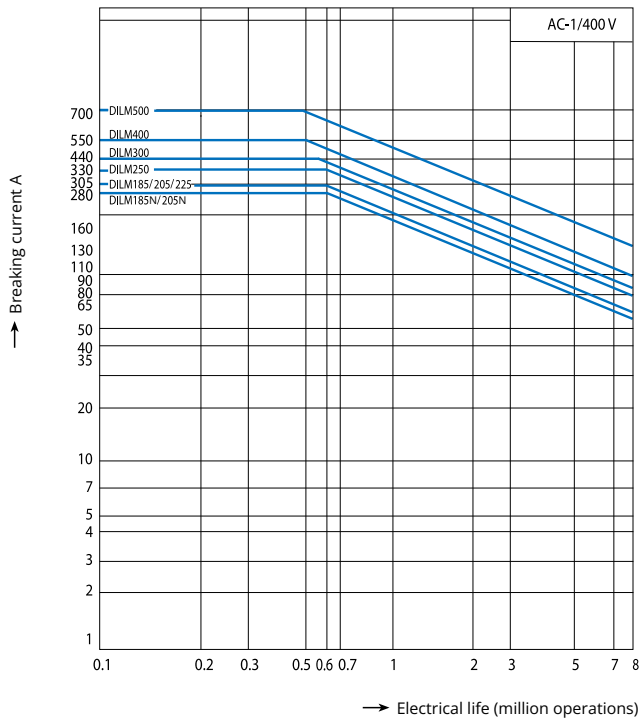
Printing machine

Drawing machine

Centrifuge

Special drive equipment for processing and handling machinery

**Operating Conditions for Non-Motor Loads**



**Operating characteristics**

Non-inductive or slightly inductive load

**Electrical characteristics**

Making: 1 x rated current

Breaking: 1 x rated current

**Utilization category**

100% AC-1

**Typical applications**

Electrical heating

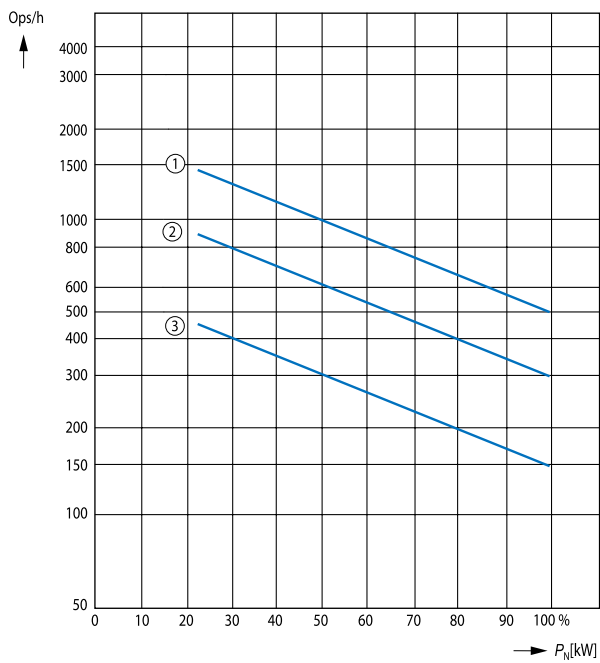
# ICON 185-500A Contactors

## Characteristic curves

Relationship between maximum operations per hour and power in the corresponding utilization category

$P_N$  [kW]= Maximum rated power of the contactor (kw), see P4-5

Ops./h=Maximum operations per hour



### Characteristics

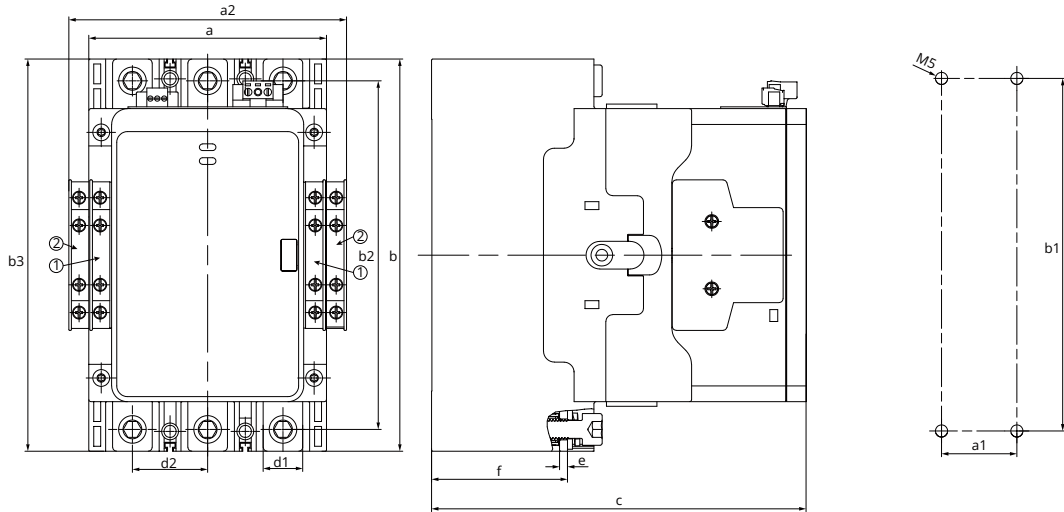
Part No.	AC-1	AC-3	AC-4
DILM185N	2	1	3
DILM205N	2	1	3
DILM185-11N	2	1	3
DILM205-11N	2	1	3
DILM225-11N	2	1	3
DILM250-11N	2	1	3
DILM300-11N	2	1	3
DILM400-11N	2	1	3
DILM500-11N	2	1	3

### Contactors

DILM185-11N~DILM500-11N (Advanced version)

- ① DILM520-XHI...SI
- ② DILM520-XHI...SA

Notes: 1) The product is equipped as standard with the basic device and a set of DILM520-XHI...SI auxiliary contacts on the right side.  
2) The side-mounted auxiliary contacts shown in the diagram are for displaying the product's related dimensions.

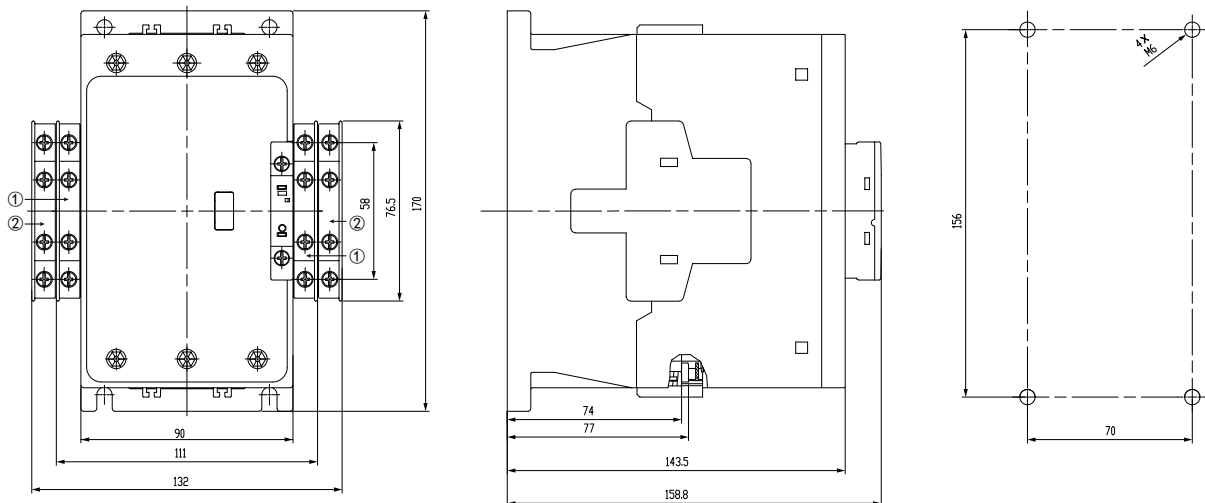


Part No.	a	a1	a2	b	b1	b2	b3	d1	d2	e	c	f
DILM185-11N	120	38	140	198	178	176	198	20	38	3	190	67.7
DILM205-11N	120	38	140	198	178	176	198	20	38	3	190	67.7
DILM225-11N	120	38	140	198	178	176	198	20	38	3	190	67.7
DILM250-11N	120	38	140	198	178	176	198	20	38	3	190	67.7
DILM300-11N	120	38	140	198	178	176	198	20	38	4	190	68.7
DILM400-11N	140	44	160	246	226	220	242	22	44	5	199	68.4
DILM500-11N	140	44	160	246	226	220	242	30	44	5	199	68.4

DILM185N/DILM205N (Baseline version)

- ① DILM1000C-XHI...SI
- ② DILM1000C-XHI...SA

Notes: 1) The product is equipped as standard with the basic device and without side-mounted auxiliary contacts.  
2) The side-mounted auxiliary contacts shown in the diagram are for displaying the product's related dimensions.



Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power-today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come.

Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly \$25 billion in 2024, the company serves customers in more than 160 countries. Eaton entered the Chinese market in 1993 and has grown significantly since then. In 2004, Eaton moved its Asia-Pacific headquarters from Hong Kong to Shanghai. Today, Eaton has nearly 8,000 employees and 19 manufacturing facilities in China.

For more information about Eaton China, visit [www.eaton.com.cn](http://www.eaton.com.cn)  
Follow Eaton China WeChat account: **Eaton\_China**

**Eaton Corporation**  
**Asia Pacific Headquarter**  
No.3, Lane 280, Linhong Road,  
Changning District,  
Shanghai 200335  
Tel: 86-21-52000099  
Fax: 86-21-52000200

© 2025 Eaton Corporation  
All Rights Reserved  
Printed in China  
06-2025

Eaton is a registered trademark  
of Eaton Corporation.

All trademarks are property of their  
respective owners.

