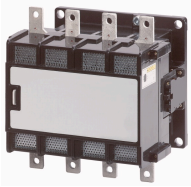
DATASHEET - DILP800/22(220-230V50HZ)

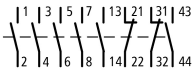


Contactor, 4 pole, 800 A, 2 N/O, 2 NC, 220 V 50 Hz, 230 V 50 Hz, AC operation, Screw terminals

Powering Business Worldwide™

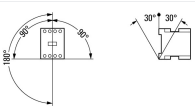
Part no.	**DILP800/22(220-230V50HZ)**
Catalog No.	**207469**
Alternate Catalog No.	**XTCFA800N22F**

Delivery program

Product range			Contactors
Application			Contactors for 4 pole electric consumers
Subrange			Contactors larger than 200 A, 4 pole
Utilization category			AC-1: Non-inductive or slightly inductive loads, resistance furnaces
Connection technique			Screw terminals
Number of poles			4 pole
Rated operational current			
AC-1			
Conventional free air thermal current, 3 pole, 50 - 60 Hz			
Open			
at 40 °C	$I_{th} = I_e$	A	800
at 55 °C	$I_{th} = I_e$	A	650
at 60 °C	$I_{th} = I_e$	A	575
Conventional free air thermal current, 1 pole			
open	I_{th}	A	2240
Contacts			
N/O = Normally open			2 N/O
N/C = Normally closed			2 NC
Contact sequence			
For use with			DILP800-XHI…
Actuating voltage			220 V 50 Hz 230 V 50 Hz
Voltage AC/DC			AC operation

Technical data

General

Standards			IEC/EN 60947, VDE 0660
Lifespan, mechanical			
AC operated	Operations	x 10^6	5
Operating frequency, mechanical			
AC operated	Operations/h		3600
Climatic proofing			Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-40 - +70
Mounting position			
Mounting position			
Mechanical shock resistance (IEC/EN 60068-2-27)			
Half-sinusoidal shock, 15 ms			
Main contacts			
N/O contact		g	10
Degree of Protection			IP00
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof with terminal shroud

Terminal capacity main cable			
Solid		mm^2	1 x (70 - 300) 2 x (35 - 185)
Stranded		mm^2	1 x (70 - 300) 2 x (35 - 185)
Terminal capacity control circuit cables			
Solid		mm^2	2 x (0.5 - 2.5)
Main cable connection screw/bolt			M10
Tightening torque		Nm	12 - 16
Control circuit cable connection screw/bolt			M3.5
Tightening torque		Nm	1.2
Tool			
Control circuit cables			
Pozidriv screwdriver		Size	2

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	1000
Rated operational voltage	U_e	V AC	1000
Safe isolation to EN 61140			
between coil and contacts		V AC	1000
between the contacts		V AC	690
Making capacity (cos φ)	Up to 690 V	A	5500 According to IEC/EN 60947
Breaking capacity			
220 V 230 V		A	5400
380 V 400 V		A	5400
500 V		A	5400
660 V 690 V		A	5400
Short-circuit rating			
Short-circuit protection maximum fuse			
Type “2” coordination			
400 V	gG/gL 500 V	A	630
Type “1” coordination			
400 V	gG/gL 500 V	A	800

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	800
at 55 °C	$I_{th} = I_e$	A	650
at 60 °C	$I_{th} = I_e$	A	575
Conventional free air thermal current, 1 pole			
open	I_{th}	A	2240
AC-3			
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
220 V 230 V	I_e	A	550
240 V	I_e	A	550
415 V	I_e	A	550
440V	I_e	A	550
500 V	I_e	A	550
660 V 690 V	I_e	A	550
1000 V	I_e	A	175
Motor rating	P	kWh	

220 V 230 V	P	kW	160
240V	P	kW	160
380 V 400 V	P	kW	280
415 V	P	kW	280
440 V	P	kW	280
660 V 690 V	P	kW	500
1000 V	P	kW	250

DC

Rated operational current, open			
DC-1			
60 V	I_e	A	800
110 V	I_e	A	800
220 V	I_e	A	800
440 V	I_e	A	650
DC-3			
60 V	I_e	A	650
110 V	I_e	A	650
220 V	I_e	A	650
440 V	I_e	A	650
DC-5			
60 V	I_e	A	650
110 V	I_e	A	650
220 V	I_e	A	650
440 V	I_e	A	650

Current heat loss

4 pole, at I_{th}		W	240

Magnet systems

Voltage tolerance			
AC operated 50 Hz	Pick-up	x U_c	0.85 - 1.1
Power consumption of the coil in a cold state and 1.0 x U_S			
AC operated 50/60 Hz	Pick-up	VA	3500
AC operated 50/60 Hz	Sealing	VA	140
AC operated 50/60 Hz	Sealing	W	60
Duty factor		% DF	100
Changeover time at 100 % U_S (recommended value)			
Main contacts			
AC operated			
Closing delay		ms	30 - 60
Opening delay		ms	10 - 20

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	800
Heat dissipation per pole, current-dependent	P_{vid}	W	60
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	60
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-40
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.

10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects		Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation		Meets the product standard's requirements.
10.2.5 Lifting		Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact		Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions		Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES		Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances		Meets the product standard's requirements.
10.5 Protection against electric shock		Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components		Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections		Is the panel builder's responsibility.
10.8 Connections for external conductors		Is the panel builder's responsibility.
10.9 Insulation properties		
10.9.2 Power-frequency electric strength		Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage		Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material		Is the panel builder's responsibility.
10.10 Temperature rise		The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility		Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function		The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

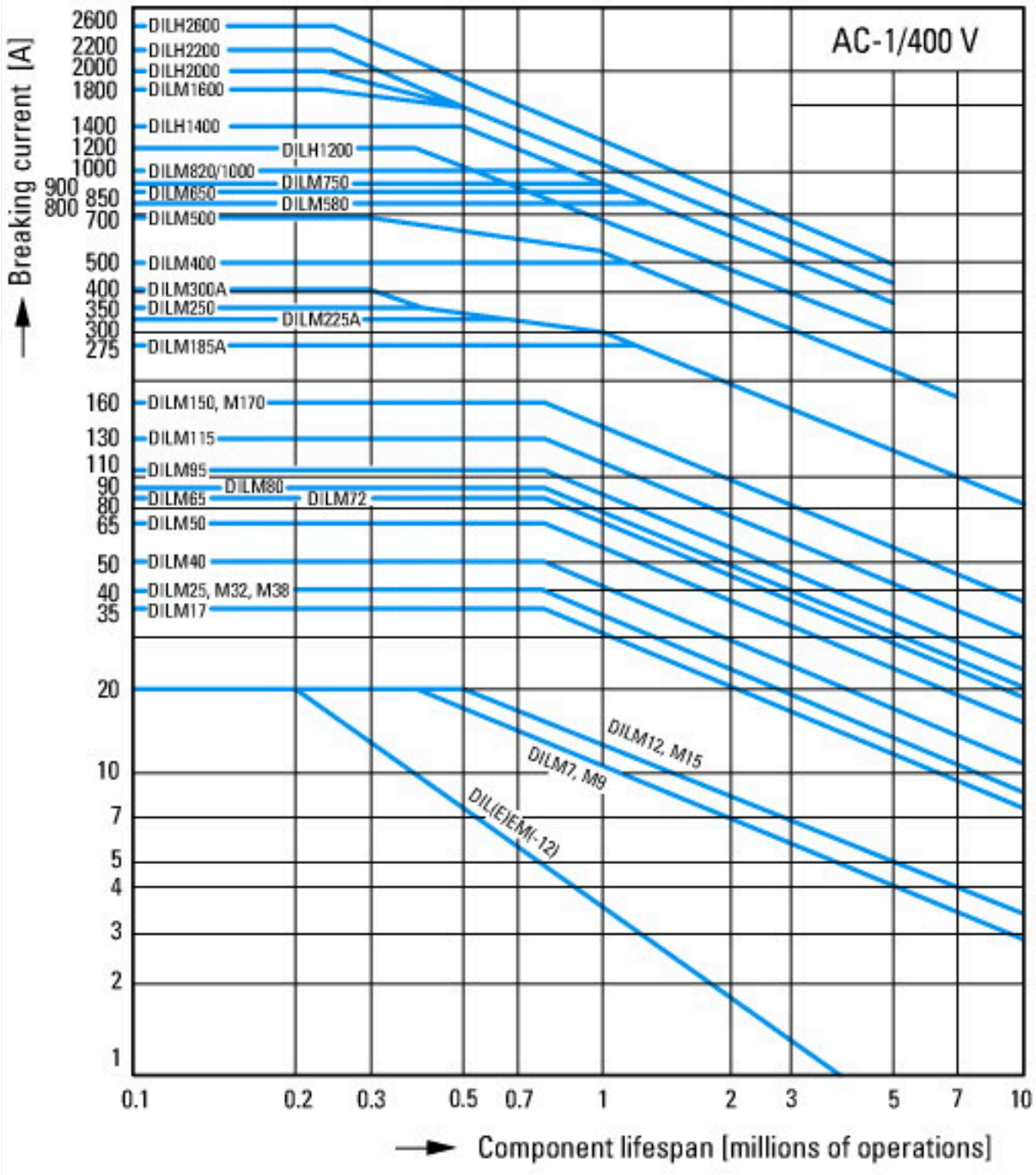
Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Power contactor, AC switching (EC000066)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Contactor (LV) / Power contactor, AC switching (ecl@ss10.0.1-27-37-10-03 [AAB718015])		
Rated control supply voltage Us at AC 50HZ	V	220 - 230
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Rated operation current Ie at AC-1, 400 V	A	800
Rated operation current Ie at AC-3, 400 V	A	550
Rated operation power at AC-3, 400 V	kW	280
Rated operation current Ie at AC-4, 400 V	A	0
Rated operation power at AC-4, 400 V	kW	0
Rated operation power NEMA	kW	0
Modular version		No
Number of auxiliary contacts as normally open contact		2
Number of auxiliary contacts as normally closed contact		2
Type of electrical connection of main circuit		Rail connection
Number of normally closed contacts as main contact		0
Number of main contacts as normally open contact		4

Approvals

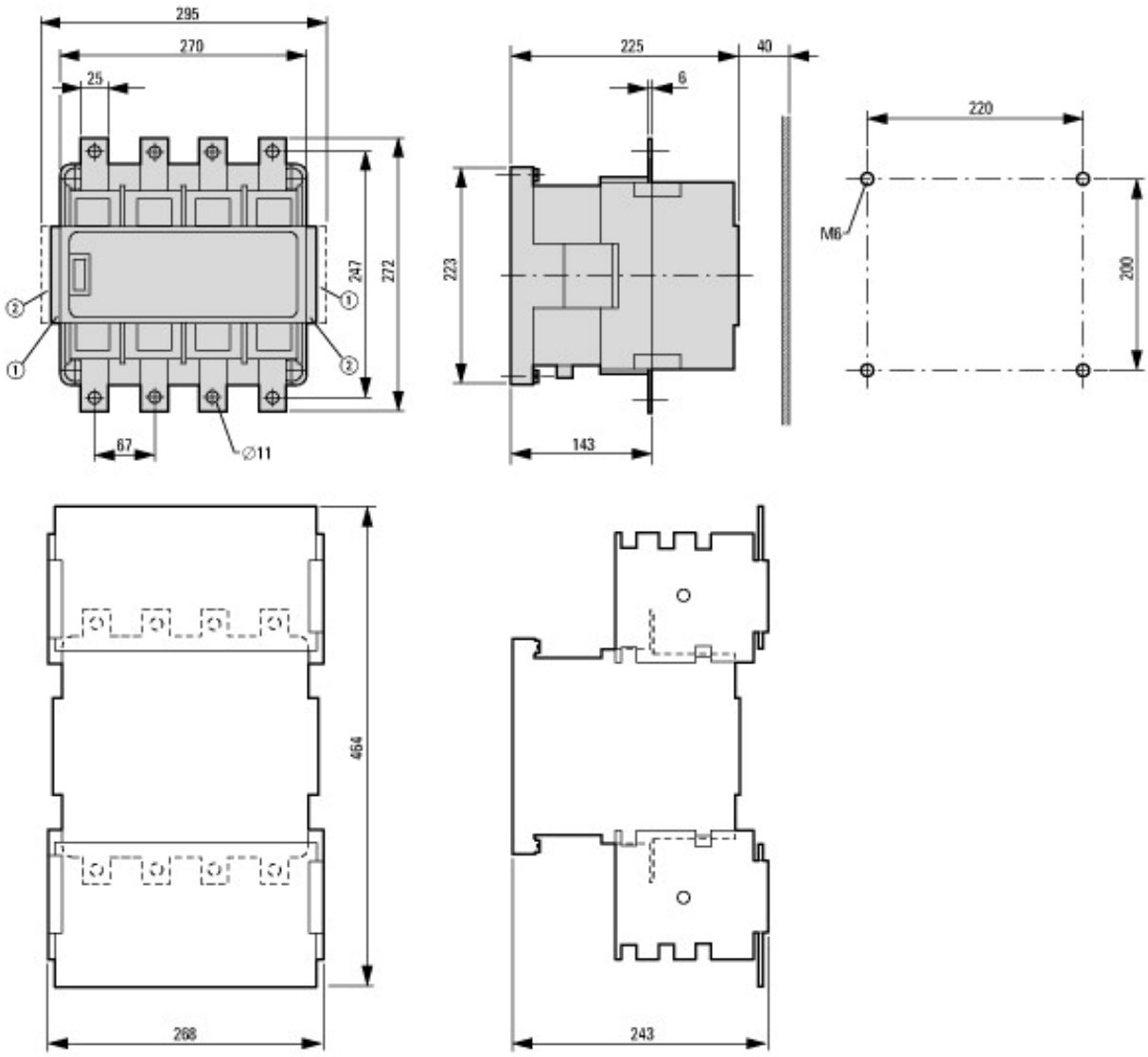
Product Standards		IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
UL File No.		E29096
UL Category Control No.		NLDX
CSA File No.		LR72236
North America Certification		UL listed, CSA certified
Specially designed for North America		No

Characteristics



Switching conditions for 4 pole, non-motor loads
Operating characteristics
Non inductive and slightly inductive loads
Electrical characteristics
Switch on: 1 x rated operational current
Switch off: 1 x rated operational current
Utilization category
100 % AC-1
Typical examples of application
Electric heat

Dimensions



① DILP800-XHI-SI
② DILP800-XHI11-SA

DILP800 + DILP800-XHB

Assets (links)

Declaration of CE Conformity

00003036

Instruction Leaflets

IL03407021Z2018_05

Additional product information (links)

IL03407021Z (AWA2100-1679) 4 pole contactors > 160 A	
IL03407021Z (AWA2100-1679) 4 pole contactors > 160 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407021Z2018_05.pdf
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf
Switchgear of Power Factor Correction Systems	http://www.moeller.net/binary/ver_techpapers/ver934en.pdf
X-Start - Modern Switching Installations Efficiently Fitted and Wired Securely	http://www.moeller.net/binary/ver_techpapers/ver938en.pdf
Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions	http://www.moeller.net/binary/ver_techpapers/ver944en.pdf
Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors	http://www.moeller.net/binary/ver_techpapers/ver949en.pdf
Switchgear for Luminaires	http://www.moeller.net/binary/ver_techpapers/ver955en.pdf
Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts	http://www.moeller.net/binary/ver_techpapers/ver956en.pdf
The Interaction of Contactors with PLCs	http://www.moeller.net/binary/ver_techpapers/ver957en.pdf

Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf