### DATASHEET - DTZ2,0(\*/\*)\*



Three-phase control isolating safety transformer, 2 kVA, Rated input voltage  $50-950\pm5$  % V, Rated output voltage 18.5-1000 V



Part no. DTZ2,0(\*/\*)\*
Catalog No. 914807
Alternate Catalog -

Delivery program

- control / programs		
Product range		Three-phase DTZ control transformers
Rated input voltage	V	$50 - 950 \pm 5 \%$
Rated output voltage	V	18.5 – 1000
Rated power	kVA	2
Short-time rating	kVA	4.4
Cu factor 6,50		

#### Notes

- UL/CSA only up to primary and secondary 600 V (incl. tapping).
- · Enclosures IP65 on request.

When ordering, the type reference must include the following details:

### DTZ0,1(\*/\*)\*

1st wildcard ≙ Nominal input voltage

2nd wildcard  $\triangleq$  Rated output voltage

3rd wildcard ≙ Configuration

### Ordering example

- Desired part no. DTZ0,1
- Desired rated input voltage 200 V
- ullet Desired rated output voltage 18.5 V
- Desired configuration Dy(n)5

The correct type reference is

#### DTZ0,1(200/18,5)DY(N)5

Additional tappings → 931897

### **Design verification as per IEC/EN 61439**

In	Α	0
P <sub>vid</sub>	W	0
P <sub>vid</sub>	W	0
$P_{vs}$	W	135
P <sub>diss</sub>	W	0
	°C	-25
	°C	40
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Does not apply, since the entire switchgear needs to be evaluated.
		Does not apply, since the entire switchgear needs to be evaluated.
		Meets the product standard's requirements.
	P <sub>vid</sub> P <sub>vid</sub> P <sub>vs</sub>	P <sub>vid</sub> W P <sub>vid</sub> W P <sub>vs</sub> W P <sub>diss</sub> W °C

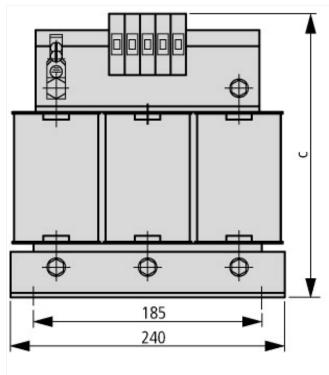
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation 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.

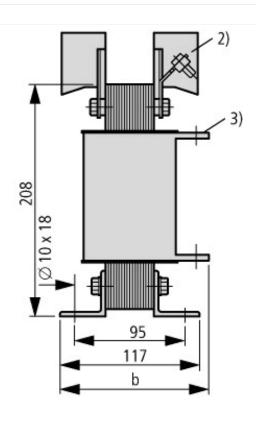
# **Technical data ETIM 7.0**

Built as isolating transformer         Yes           Primary voltage 1         V         30           Primary voltage 2         V         30         950           Primary voltage 3         V         30         950           Primary voltage 4         V         30         950           Primary voltage 5         V         30         950           Primary voltage 6         V         30         950           Primary voltage 7         V         30         950           Primary voltage 8         V         30         950           Primary voltage 9         V         0         0           Primary voltage 10         V         0         0           Secondary voltage 10         V         0         0           Secondary voltage 1         V         185         1000           Secondary voltage 2         V         185         1000           Secondary voltage 3         V         185         1000           Secondary voltage 4         V         185         1000           Secondary voltage 8         V         0         0           Secondary voltage 9         V         0         0           Secondary	16Cililical uala Ettivi 7.0		
Built as safety transformer  Built as safety transformer  Built as energy saving transformer  Primary voltage 1  Primary voltage 2  Primary voltage 3  Primary voltage 4  Primary voltage 4  Primary voltage 5  Primary voltage 6  Primary voltage 6  Primary voltage 7  Primary voltage 7  Primary voltage 8  Primary voltage 8  Primary voltage 9  Primary voltage 1  V 0 -0  Recordary voltage 3  V 0 185-1000  Recordary voltage 3  V 0 185-1000  Recordary voltage 3  V 0 -0  Recordary voltage 4  V 0 -0  Recordary voltage 5  Recordary voltage 8  V 0 -0  Recordary voltage 7  V 0 -0  Recordary voltage 8  V 0 -0  Recordary voltage 9  Recordary voltage	Low-voltage industrial components (EG000017) / Three-phase control transformer (EC00	02485)	
Built as isolating transformer         Yes           Primary voltage 1         V         30           Primary voltage 2         V         30         950           Primary voltage 3         V         30         950           Primary voltage 4         V         30         950           Primary voltage 5         V         30         950           Primary voltage 6         V         30         950           Primary voltage 7         V         30         950           Primary voltage 8         V         30         950           Primary voltage 9         V         0         0           Primary voltage 10         V         0         0           Secondary voltage 10         V         0         0           Secondary voltage 1         V         185         1000           Secondary voltage 2         V         185         1000           Secondary voltage 3         V         185         1000           Secondary voltage 4         V         185         1000           Secondary voltage 8         V         0         0           Secondary voltage 9         V         0         0           Secondary	Electric engineering, automation, process control engineering / Transformer, converter,	coil / Control transfo	ormer / Three-phase control transformer (ecl@ss10.0.1-27-03-13-01 [AAB619015])
Built as energy saving transformer         No           Primary voltage 1         V         50 -950           Primary voltage 2         V         50 -950           Primary voltage 3         V         50 -950           Primary voltage 4         V         50 -950           Primary voltage 5         V         50 -950           Primary voltage 7         V         0 -0           Primary voltage 8         V         0 -0           Primary voltage 9         V         0 -0           Primary voltage 10         V         0 -0           Secondary voltage 1         V         185 -1000           Secondary voltage 2         V         185 -1000           Secondary voltage 3         V         185 -1000           Secondary voltage 4         V         185 -1000           Secondary voltage 5         V         185 -1000           Secondary voltage 6         V         185 -1000           Secondary voltage 8         V         185 -1000           Secondary voltage 8         V         185 -1000           Secondary voltage 9         V         0 -0           Secondary voltage 8         V         0 -0           Secondary voltage 9         V	Built as safety transformer		Yes
Primary voltage 1         V         50 - 950           Primary voltage 2         V         50 - 950           Primary voltage 3         V         50 - 950           Primary voltage 4         V         50 - 950           Primary voltage 5         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 1         V         10 - 0           Secondary voltage 2         V         185 - 1000           Secondary voltage 3         V         185 - 1000           Secondary voltage 4         V         185 - 1000           Secondary voltage 5         V         185 - 1000           Secondary voltage 6         V         185 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         185 - 1000           Secondary voltage 9         V         0 - 0           Secondary voltage 9 <t< td=""><td>Built as isolating transformer</td><td></td><td>Yes</td></t<>	Built as isolating transformer		Yes
Primary voltage 2         V         50 - 950           Primary voltage 3         V         50 - 950           Primary voltage 4         V         50 - 950           Primary voltage 6         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 10         V         10 - 0           Secondary voltage 1         V         185 - 1000           Secondary voltage 2         V         185 - 1000           Secondary voltage 3         V         185 - 1000           Secondary voltage 4         V         185 - 1000           Secondary voltage 5         V         185 - 1000           Secondary voltage 6         V         185 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 1         V         0 - 0           Secondary voltage 2         V         0 - 0           Secondary voltage 3         V         0 - 0           Secondary voltage 6 <t< td=""><td>Built as energy saving transformer</td><td></td><td>No</td></t<>	Built as energy saving transformer		No
Primary voltage 3         V         50 - 950           Primary voltage 5         V         50 - 950           Primary voltage 6         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 10         V         0 - 0           Secondary voltage 12         V         185 - 1000           Secondary voltage 3         V         185 - 1000           Secondary voltage 4         V         185 - 1000           Secondary voltage 5         V         185 - 1000           Secondary voltage 6         V         0 - 0           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         W         0 - 0           Ruled power         W	Primary voltage 1	V	50 - 950
Primary voltage 4         V         50 - 950           Primary voltage 5         V         50 - 950           Primary voltage 6         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 10         V         0 - 0           Secondary voltage 1         V         185 - 1000           Secondary voltage 2         V         185 - 1000           Secondary voltage 3         V         185 - 1000           Secondary voltage 4         V         185 - 1000           Secondary voltage 5         V         185 - 1000           Secondary voltage 6         V         185 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Williag voltage 10	Primary voltage 2	V	50 - 950
Primary voltage 5         V         50 - 950           Primary voltage 6         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 10         V         0 - 0           Secondary voltage 1         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wirling voltage 10	Primary voltage 3	V	50 - 950
Primary voltage 6         V         50 - 950           Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 10         V         0 - 0           Secondary voltage 1         V         185 - 1000           Secondary voltage 2         V         185 - 1000           Secondary voltage 3         V         185 - 1000           Secondary voltage 4         V         185 - 1000           Secondary voltage 5         V         185 - 1000           Secondary voltage 6         V         185 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         N         0 - 0           Reter dower         N         200           Type of insulation material acc. IEC 85         8           Short-circuit-proof         N         35           Red takes bort circuit-proof         Copper	Primary voltage 4	V	50 - 950
Primary voltage 7         V         0 - 0           Primary voltage 8         V         0 - 0           Primary voltage 9         V         0 - 0           Primary voltage 1         V         0 - 0           Secondary voltage 1         V         18.5 - 1000           Secondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Rated power         VA         2000           Type of insulation material acc. IEC 85         B           Short-circuit-proof         N         N           Relative short circuit voltage         N         25           Conductor material         Copper           Width         m         240      <	Primary voltage 5	V	50 - 950
Primary voltage 8         V         0 - 0           Primary voltage 10         V         0 - 0           Secondary voltage 1         V         0 - 0           Secondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 9         V         0 - 0           Wiring system         VA         2000           Miring system         VA         2000           Rated power         VA         2000           Type of insulation material acc. IEC 85         N         N           Relative short circuit voltage         %         3.5           Conductor material         m         Copper           Width         mm         24           Lieght         mm         279           Depth         mm         117	Primary voltage 6	V	50 - 950
Primary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Secondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Related power         VA         2000           Type of insulation material acc. IEC 85         B         8           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5           Conductor material         Copper           Width         mm         240           Depth         mm         299           Depth         mm         117           Depth         mm         117           Deg	Primary voltage 7	V	0 - 0
Primary voltage 10         V         0 - 0           Secondary voltage 1         V         18.5 - 1000           Secondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Related power         VA         2000           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5           Conductor material         Copper           Width         mm         240           Belgith         mm         240           Degree of protection (IP)         mm         217	Primary voltage 8	V	0 - 0
Secondary voltage 1         V         18.5 - 1000           Secondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Retact power         VA         2000           Type of insulation material acc. IEC 85         B         S           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5         Copper           Width         mm         240           Width         mm         279           Depth         mm         117           Depth         mm         117           Depth         mm         117           Proof         Proof	Primary voltage 9	V	0 - 0
Sacondary voltage 2         V         18.5 - 1000           Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         0 - 0           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Rated power         VA         2000           Type of insulation material acc. IEC 85         B           Short-circuit-proof         V         3.5           Relative short circuit voltage         %         3.5           Conductor material         P         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Depth         mm         117           Depth         mm         1190	Primary voltage 10	V	0 - 0
Secondary voltage 3         V         18.5 - 1000           Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Rated power         VA         2000           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         3.5           Conductor material         W         20pper           Width         mm         240           Height         mm         279           Depth         mm         17           Depth         mm         17           Depth         mm         17           Degree of protection (IP)         IP00	Secondary voltage 1	V	18.5 - 1000
Secondary voltage 4         V         18.5 - 1000           Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Reted power         VA         2000           Type of insulation material acc. IEC 85         B           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5           Conductor material         mm         240           Width         mm         279           Depth         mm         117           Depth         mm         117           Depth         mm         1190	Secondary voltage 2	V	18.5 - 1000
Secondary voltage 5         V         18.5 - 1000           Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wirring system         VA         2000           Related power         VA         2000           Type of insulation material acc. IEC 85         B         8           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5           Conductor material         mm         240           Width         mm         279           Depth         mm         177           Depth         mm         170           Degree of protection (IP)         IPO0	Secondary voltage 3	V	18.5 - 1000
Secondary voltage 6         V         18.5 - 1000           Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         VA         2000           Reated power         VA         2000           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         3.5           Relative short circuit voltage         %         3.5           Conductor material         mm         240           Width         mm         279           Degth         mm         117           Degree of protection (IP)         IPO0	Secondary voltage 4	V	18.5 - 1000
Secondary voltage 7         V         0 - 0           Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         Other           Rated power         VA         2000           Type of insulation material acc. IEC 85         B           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Secondary voltage 5	V	18.5 - 1000
Secondary voltage 8         V         0 - 0           Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         Uher         Other           Rated power         VA         2000           Type of insulation material acc. IEC 85         B         No           Short-circuit-proof         No         Accordance           Relative short circuit voltage         %         3.5         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Secondary voltage 6	V	18.5 - 1000
Secondary voltage 9         V         0 - 0           Secondary voltage 10         V         0 - 0           Wiring system         Other           Rated power         VA         2000           Type of insulation material acc. IEC 85         B         B           Short-circuit-proof         No         No           Relative short circuit voltage         %         3.5         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00         IP00	Secondary voltage 7	V	0 - 0
Secondary voltage 10  Wiring system Rated power  VA  2000 Type of insulation material acc. IEC 85  Short-circuit-proof Relative short circuit voltage  Width  mm  279  Degree of protection (IP)  V 0 - 0  Other  No  Other  Other  No  Other  Other  No  Other  Other  No  No  No  No  No  No  No  No  No  N	Secondary voltage 8	V	0 - 0
Wiring system Rated power VA 2000 Type of insulation material acc. IEC 85 Short-circuit-proof Relative short circuit voltage Width Height Degree of protection (IP)  Other Other  Other Ot	Secondary voltage 9	V	0 - 0
Rated power  Type of insulation material acc. IEC 85  Short-circuit-proof Relative short circuit voltage  Conductor material  Width  mm  279  Degree of protection (IP)  VA  2000  B  B  Con00  Con00  No  Conper  Copper  VA  2000  No  No  Copper  No  Copper  VA  2000  No  No  No  No  No  Copper  VA  1000  No  No  No  Copper  VA  1000  No  No  No  No  No  No  No  No  No	Secondary voltage 10	V	0 - 0
Type of insulation material acc. IEC 85 Short-circuit-proof Relative short circuit voltage Conductor material Width Height Degree of protection (IP)  B Short-circuit-proof No No No Relative short circuit voltage No	Wiring system		Other
Short-circuit-proof         No           Relative short circuit voltage         %         3.5           Conductor material         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Rated power	VA	2000
Relative short circuit voltage         %         3.5           Conductor material         copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Type of insulation material acc. IEC 85		В
Conductor material         Copper           Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Short-circuit-proof		No
Width         mm         240           Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Relative short circuit voltage	%	3.5
Height         mm         279           Depth         mm         117           Degree of protection (IP)         IP00	Conductor material		Copper
Depth mm 117 Degree of protection (IP) IP00	Width	mm	240
Degree of protection (IP)	Height	mm	279
	Depth	mm	117
Degree of protection (NEMA) Other	Degree of protection (IP)		IP00
	Degree of protection (NEMA)		Other

Approvals	
Product Standards	UL 506; UL5085-1; UL 5085-2; CSA-C22.2 No. 66; CSA-C22.2 No. 66.1-06; CSA-C22.2 No. 66.2-06; IEC/EN 61558-2-2; CE marking
UL File No.	E167225
UL Category Control No.	XPTQ2, XPTQ8
CSA File No.	UL report applies to both US and Canada
CSA Class No.	-
North America Certification	UL recognized, certified by UL for use in Canada
Specially designed for North America	No
Suitable for	Branch circuits
Max. Voltage Rating	600 V AC
Degree of Protection	IEC: IP00. UL/CSA Type: -

### **Dimensions**





	b	С
18.5 V	117	279
24 V	117	279
42 V	117	279
110 V	141	244
230-690 V	117	233

- ① The higher rated operating voltage applies ② Terminals ≦ 25 A ③ Connection lugs > 63 A

# **Assets (links)**

**Declaration of CE Conformity** 

00003099