

The following are additions and revisions to ANSI/IEEE C37.30-1971 [R1977]:

Add:

4.5.3 Switch Part Class Designation. The switch part class designation is a code that identifies the curve relating the loadability factor LF of the switch part class to the ambient temperature θ_A as determined by the allowable maximum temperature $\theta_{\max}$, the limit of observable temperature rise θ_r , and the formula:

$$LF = \frac{I_A}{I_R} = \left(\frac{\theta_{\max} - \theta_A}{\theta_r} \right)^{0.5}$$

The switch part class designations are given in Table 3.

NOTE: This designation does not apply to switch parts used in enclosures covered by ANSI/IEEE C37.20-1969 [R1981], IEEE Standard for Switchgear Assemblies Including Metal-Enclosed Bus.

Add:

4.5.4 Allowable Continuous Current Class (ACCC) Designation. The allowable continuous current class designation of an air switch is a code that identifies the composite curve relating the loadability factor LF of the switch to the ambient temperature θ_A as determined by the limit-

ing switch part class designations. The first term of the allowable continuous current class designation is obtained from the first letter of the class designation of the switch part having the lowest limit of observable temperature rise; the middle term is the letter O designating loadability at 25 °C ambient; and the last term is obtained from the numeral of the class designation of the switch part having the highest limit of observable temperature rise.

NOTES:

(1) For switch part class designations see Table 3.

(2) For switch part class designation curves, allowable continuous current class designation curves, and corresponding tables, see ANSI/IEEE C37.37-1979, IEEE Standard Loading Guide for AC High-Voltage Air Switches.

(3) This ACCC designation does not apply to switches used in enclosures covered by ANSI/IEEE C37.20-1969 [R1981], IEEE Standard for Switchgear Assemblies Including Metal-Enclosed Bus.

Revise:

6.1 Air Switches. Footnote to (9) should read:

¹For allowable continuous current class (ACCC) designation curves and tables, see ANSI/IEEE C37.37-1979, IEEE Standard Loading Guide for AC High-Voltage Air Switches.

Switch part class designations have been added to Table 3. The revised table is as follows:

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Table 3
Temperature Limitations for Air Switches

Switch Part	Nonenclosed Indoor and Outdoor Switches			Enclosed Indoor and Outdoor Switches	
	Allowable Maximum Temperature, θ_{max} (°C)	Limit of Observable Temperature Rise at Rated Continuous Current, θ_r (°C) (See Note 1)	Switch Part Class Designation	Limit of Observable Temperature Rise at Rated Continuous Current, θ_r (°C)	Switch Part Class Designation
Switch Part	Col 1	Col 2	Col 3	Col 4	Col 5
(1) Contacts in air (see Note 2)					
(a) Copper or copper alloy	75	33	BO2	20	QO ₃ 3
(b) Copper or copper alloy to silver or silver alloy, or equivalent	90	43	DO4	33	RO4
(c) Silver, silver alloy, or equivalent	105	53	FO6	43	TO6
(d) Other (see Note 3)	—	—	—	—	—
(2) Conducting mechanical joints					
(a) Copper or aluminum	90	43	DO4	33	RO4
(b) Silver, silver alloy, or equivalent	105	53	FO6	43	TO6
(c) Other (see Note 3)	—	—	—	—	—
(3) Switch terminals with bolted connections	90	43	DO4	33	RO4
(4) Welded or brazed joints or equivalent	105	53	FO6	43	TO6
(5) Other current-carrying parts					
(a) Copper or copper alloy castings	105	53	FO6	43	TO6
(b) Hard drawn copper parts (see Note 4)	80	37	CO3	25	PO ₂ 2
(c) Heat treated aluminum alloy parts	105	53	FO6	43	TO6
(d) Woven wire flexible connectors	75	33	BO2	20	QO ₃ 3
(e) Other materials (see Note 3)	—	—	—	—	—
(6) Insulator caps and pins and bushing caps	110	57	GO7	47	UO7
(7) Current-carrying parts in contact with insulating materials (see Note 5)					
(a) Insulation Class 90 °C	80	37	CO3	25	PO ₂ 2
(b) Insulation Class 105 °C	95	47	EO3	37	SO ₅
(c) Insulation Class 130 °C	120	63	HO8	53	VO8
(d) Insulation Class 155 °C	145	80	IO9	70	WO9
(e) Insulation Class 180 °C	170	97	JO10	87	XO10
(f) Insulation Class 220 °C	210	123	KO11	113	YO11
(g) Oil (see Note 6)	90	43	DO4	33	RO4
(8) Nonenergizable parts subjected to contact by personnel					
(a) Handled by operator (see Note 7)	50	10	—	10	—
(b) Accessible to operator (see Note 7)	70	30	—	30	—
(c) Not accessible to operator (see Note 8)	—	—	—	—	—

NOTES to Table 3:

In (2), change Contacts are used here... to Contacts as used here...

In (3), second sentence, change rated current to rated continuous current