

Category Level 1:Electrical Systems and Lighting and Components and Accessories and Supplies - UNSPSC Code: 39

Category Level 2 : Electrical equipment and components and supplies - UNSPSC Code: 3912

Category Level 3 : Distribution and control centers and accessories - UNSPSC Code: 391211

Category Level 4: Metal enclosed switch gear and control gear for AC - Outdoor - Rated voltage above 1 kV upto and including 52 kV (Switchgear Systems) - UNSPSC Code: 39121105

S.No.	Parameters	Field type	Field Category	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7
1	Group: PANEL									
2	Metal enclosed Switch gear and control gear for alternating current rate voltage above 1 kV upto and including 52 kV generally conforming to	Enumerable	Mandatory	IS 3427: 1997 latest /IEC 298:1990 latest						
3	Application	Enumerable	Mandatory	Outdoor						
4	Mounting arrangement	Enumerable	Mandatory	Floor mounted						
5	Group: SERVICE CONDITION									
6	The ambient air temperature	Enumerable	Mandatory	<40 deg. C						
7	The minimum ambient air temperature	Enumerable	Golden, Filter, Mandatory	-10 deg. C	-25 deg. C	-40 deg C				
8	Solar radiation up to a level of	Enumerable	Mandatory	1 000 W/m2						
9	The altitude	Enumerable	Mandatory	<1000 m						
10	The pollution does not exceed	Enumerable	Mandatory	pollution level II						
11	The ice coating class	Enumerable	Golden, Filter, Mandatory	Class 1	Class 10	Class 20				
12	The wind speed does not exceed	Enumerable	Mandatory	34 m/s						
13										
14	Normal EMC severity class	Enumerable	Mandatory	<1.6 kV common mode						
15	Reduced EMC severity class	Enumerable	Mandatory	<0.8 kV common mode						

16	Type of metal enclosed switch gear and control gear	Enumerable	Golden, Filter, Mandatory	Metal clad switch gear and control gear	Compartmented switch gear and control gear	Cubicle switch gear and control gear				
17	Enclosure - Degree of protection - as per IS/IEC 60529: 2001	Enumerable	Golden, Filter, Mandatory	IP54	IP56	IP65	IP67			
18	Compartment	Enumerable	Golden, Filter, Mandatory	Gas filled - Controlled pressure	Gas filled - Closed pressure	Gas filled - Sealed pressure	Liquid insulated hermitically sealed			
19	Rated voltage (in kV)	Enumerable	Golden, Filter, Mandatory	3.6	7.2	12	17.5	24	36	52
20	Rated insulation level (Rated lightning impulse withstand voltage common value) (in kV peak value)	Enumerable	Golden, Filter, Mandatory	20, 40, 60, 75, 95, 125, 145, 170, 250						
21	Rated frequency	Enumerable	Mandatory	50 Hz						
22	Rated normal current (in A)	Enumerable	Golden, Filter, Mandatory	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10, 12.5, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000						
23	Temperature rise (as per Cl.4.4.2 of IS 3427: 1997/IEC:298:1990 latest	Enumerable	Mandatory	Yes.						
24	Rated short time withstand current	Enumerable	Golden, Filter, Mandatory	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10, 12.5, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000						
25	Rated peak withstand current The rated peak withstand current shall correspond to the rated frequency. For a rated frequency of 50 Hz and below it is equal to 2.5 times the rated short-time withstand current, and for a rated frequency of 60 Hz it is equal to 2.6 times the rated short-time withstand current. - Must declare	Text	Mandatory							
26	Rated duration of short circuit (in seconds)	Enumerable	Golden, Filter, Mandatory	0.5	1	23				
27	Rated supply voltage of closing and opening devices and of auxiliary and control circuits - DC voltage In Volts)	Enumerable	Golden, Filter, Mandatory	24	48	60	110	125	220	250
28	Rated supply voltage of closing and opening devices and of auxiliary and control circuits - Alternating current voltage - Three-phase, three-wire or four-wire systems - (In Volts)	Enumerable	Golden, Filter, Mandatory	120/208	220/380	230/400	240/415	277/480	347/600	NA

29	Rated supply voltage of closing and opening devices and of auxiliary and control circuits - Alternating current voltage - Single-phase, three-wire systems (In Volts)	Enumerable	Golden, Filter, Mandatory	120/240	NA					
30	Rated supply voltage of closing and opening devices and of auxiliary and control circuits - Alternating current voltage - Single-phase, two-wire systems (In Volts)	Enumerable	Golden, Filter, Mandatory	120	220	230	240	277	347	NA
31	Rated supply frequency of closing and opening devices and of auxiliary circuits - Must declare (n Hz)	Text	Mandatory							
32	Rated pressure of compressed gas supply for operation	Enumerable	Golden, Filter, Mandatory	0.5 Mpa	1 Mpa	1.6 Mpa	2 Mpa	3 Mpa	4 Mpa	NA
33	Position of mechanical and electrical emergency trip arrangement	Enumerable	Mandatory	Yes. Provided.						
34	Mass of the unit (in kG) - Must declare	Text	Mandatory							
35	Overall dimensions of the unit (L mm x W mm x H mm) - Must declare	Text	Mandatory							
36	GROUP: DESIGN AND CONSTRUCTION									
37	Complete Design and construction shall be as per Section 5 of IS 3427: 1997/IEC:298:1990 latest including earthing, name plates, inspection windows, interlocks etc.,	Enumerable	Mandatory	Yes						
38	Earthing as per Cl. 5.3 of IS:3427	Enumerable	Mandatory	Yes						
39	Auxiliary equipment as per Cl. 5.4 of IS:3427	Enumerable	Mandatory	Yes						
40	Dependent power closing as per Cl. 5.5 of IS:3427	Enumerable	Mandatory	Yes						
41	Stored energy closing as per Cl. 5.6 of IS:3427	Enumerable	Mandatory	Yes						
42	Operating of releases as per Cl. 5.7 of IS:3427	Enumerable	Mandatory	Yes						
43	Low and high pressure interlocking devices as per Cl. 5.8 of IS:3427	Enumerable	Mandatory	Yes						
44	Name plates as per Cl. 5.9 of IS:3427	Enumerable	Mandatory	Yes						
45	Enclosure as per Cl. 5.102 of IS:3427	Enumerable	Mandatory	Yes						
46	Partitions and shutters as per Cl. 5.103 of IS:3427	Enumerable	Mandatory	Yes						
47	Pressure relief of gas filled compartments as per Cl. 5.104 of IS:3427	Enumerable	Mandatory	Yes						

48	Disconnectors and earthing switches as per Cl. 5.105 of IS:3427	Enumerable	Mandatory	Yes						
49	Interlocks as per Cl. 5.106 of IS:3427	Enumerable	Mandatory	Yes						
50	Enclosure material and thickness	Enumerable	Golden, Filter, Mandatory	Steel, 2 mm thick	Steel, 2.5 mm					
51	Requirements for auxiliary and control circuit components - Cables and wiring - Suitable rating of cables shall be used for the panel circuits shall be conforming to	Enumerable	Golden, Filter, Mandatory	IS:694 (FR type cable)	IS:694 (FR-LSH type cable)	IS:1554 (Part 1) (FR type cable)	IS:1554 (Part 1) (FR-LSH type)			
52	GROUP: BUSBAR									
53	Offered Metal enclosed Switch gear and control gear shall be provided with suitable bus bars for the offered ratings	Enumerable	Mandatory	Yes						
54	No. of busbars	Enumerable	Golden, Filter, Mandatory	2	3					
55	Bus bar material	Enumerable	Golden, Filter, Mandatory	Electrolytic copper						
56	Shape of bus bar	Enumerable	Golden, Filter, Mandatory	Rectangular	Tubular					
57	Bus bar temperature	Enumerable	Golden, Filter, Mandatory	<95 deg. C						
58	Rated normal current of busbars and feeder circuits (in A)	Enumerable	Golden, Filter, Mandatory	1, 1.25, 1.6, 2, 2.5, 3.15, 4, 5, 6.3, 8, 10, 12.5, 16, 20, 25, 31.5, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000						
59	Bus bar material certificate shall be furnish along with supply	Enumerable	Mandatory	Yes						
60	Group: RELAYS									
61	Offered Metal enclosed Switch gear and control gear shall be provided with suitable ratings of relays for over load, over current, under voltage, earth fault, short circuit protection etc.,	Enumerable	Mandatory	Yes						
62	All the relays shall meet the requirements of relevant IS/IEC standards.	Enumerable	Mandatory	Yes						
63	Test reports and calibration test reports shall be furnish for the relays along with supply	Enumerable	Mandatory	Yes						
64	GROUP: METERING									
65	Offered Metal enclosed Switch gear and control gear shall be provided with suitable ratings of Voltmeter, Ammeter and other measuring instruments as applicable	Enumerable	Mandatory	Yes						

66	All the meters and measuring instruments shall meet the requirements of relevant IS/IEC standards.	Enumerable	Mandatory	Yes						
67	Test reports and calibration test reports for the measuring instruments shall be furnish along with supply	Enumerable	Mandatory	Yes						
68	GROUP: WARRANTY									
69	On site Warranty for complete Offered Metal enclosed Switch gear and control gear	Enumerable	Golden, Filter, Mandatory	1 Year	2 Years	3 Years				
70	Installation and commissioning	Enumerable	Golden, Filter, Mandatory	Yes	No					
71	Voltage tests after erection on site	Enumerable	Golden, Filter, Mandatory	Yes	No					
72	GROUP: CERTIFICATION									
73	Availability of type test report for the complete Metal enclosed Switch gear and control gear with drawings from Central Govt., lab/NABL/ILAC accredited lab to conformity of the specification	Enumerable	Mandatory	Yes						
74	Test report number - Must declare	Text	Mandatory							
75	Test report date - Must declare	Text	Mandatory							
76	Name of lab - Must declare	Text	Mandatory							
77	Address of lab - Must declare	Text	Mandatory							
78	All the test reports and certificates shall furnish by the seller to purchase authority on demand	Enumerable	Mandatory	Yes						