External Electrification work for College of Physiotherapy & College of Nursing in the Campus of University of Health Sciences at village Kutail, Karnal, Haryana.

LIST OF APPROVED MAKES/BRANDS/AGENCIES

	NOTES: -	
1	Contractor shall supply ISI marked material as per the makes or brands indicated below as approved by the Engineer-in-Charge. In case the firm is not manufacturing ISI marked material for any of the brands, first quality material shall be accepted The samples of the material shall in either case have to be got approved from the Engineer. Incase Engineer -in-charge feels that some material /brand is not meeting the project requirements/client requirements or proper specifications , the same shall not be allowed even if its brand name is included in list of approved make/brand above. No claim of contractor on this account shall be entertained for difference in cost etc.	
2	Material where no make / brand has been mentioned, ISI marked samples shall be submitted by the Contractor for approval of Engineer. For those classes of materials, where no firm exists with ISI mark, sample of first quality material of the firm shall be submitted for the approval of the Engineer.	
3	Any variation from the above mentioned makes/brands will require specific approval of the Engineer. Equivalency of any item/material shall be determined by the present day cost of item/material. The items falling within plus / minus (±) 2% of cost shall be treated as equivalent. Rates shall be collected only from the main suppliers/manufactures for comparison	
4	It will be contractors' responsibility to ensure the quality of products listed in approved list of brands Contractor will have to replace the defective and substandard materials at his own cost.	
5	No material shall be used by the contractor as long as samples have been approved by Engineer/ Engineer-in-charge in writing and keep the record at site as per procedure	

ELECTRICAL WORK

A. EXTERNAL ELECTRICAL WORKS

S.No.	Item Description	Approved Makes
1	GI Pipes	Jindal Hissar, Surya, Prakash, Atul
2	MS Pipe	Tata, Jindal, Surya, Prakash, Atul
3	PVC Pipes/Conduits	BEC, AKG, Atul
4	Copper conductor PVC Insulated Wires	Havells, polycab, finolex
5	Miniature Circuit Breakers(C-Curve) (ISI Mark)	Legrand, Siemens, L&T, Schenider, ABB
6	Earth Leakage Circuit Breakers	Legrand, Siemens, L&T, Schenider, ABB
7	Molded case circuit breaker (with rotary handle)	L&T (D Sine), Schneider Electric (NSX), Legrand (DPX), Siemens (3VL)
8	MCB Distribution Boards	Legrand, Siemens Electric (MG),Hager
9	HRC fuses	L&T, Siemens,Legrand
10	Air Circuit Breakers	L&T (U –Power), Siemens Electric (Masterpact NW), ABB(E Max), Legrand (DMX3)
11	Protective Relays/IDMT Relays	Alstom, ABB, Siemen
12	On - load Switch Isolator	ABB, L&T, Siemens
13	APFC Relays (Microprocessor)	L&T, Schneider, Siemens, Neptune-Ducati,
1 4	MV Switchboards a) Main LT Panels/HT Panels/HVAC Panel/Sub panel	Tricolite,Spc Electrotec/Adlec/havells/C&S/precician
15	MV Contactors, Timer (Solid stat)	L&T, Siemens, ABB
16	1100 Volts grade cables/XLPE cable	Polycab, Finolex,Havells
17	1100 Volts grade PVC control cables/XLPE cable	Polycab, Finolex,Havells
18	Cable Lugs (Tinned Copper)	Dowells, Jainson,kiran
19	Cable compressiopn glands	Peeco, Comet, Trinity Touch, kiran
20	11KV XLPE Cables	Polycab, Finolex,Havells,Negiflex

21	11 KV Cable Joints (Heat shrinkable)	Denson, Raychem,kiran
22	11 KV Vacuum Circuit Breakers	Siemens, L&T, Schinder
23	HT Relays	Siemens, Alstom, L&T
24	11 KV ring main unit	Siemens, Schinder, L&T
25	DG Sets	Cummins, Sudhir, Kirloskar,
26	Capacitor	L&T, Siemens, Schinder
27	Cast Resin Current Transformer	AE, Kappa, Gilbert, Maxwell
28	Meters Digital	Rishab, AE, Siemens
29	Trivector Meter	Siemens, Schinder
30	HT-CT, PT, Meter	AE, Kappa, Siemens
31	Selector Switches	Kaycee, L&T Sazler
32	Indication lamp (LED type)	L&T, Siemens
33	Cable Tray,raceway	Slotco, CTM ENGG, OBO,SWIFT/PROFAB
34	Gang Operated air breaker Switch unit	PACTIL, MEI
35	Single Pole drop out fuses	PACTIL, MEI
36	11 KV pallet type lighting accessories	WSI, OVALUM, Elpro, BHEL
37	11 KV Insulator	WSI, Ovalum, Elpro, BHEL
38	Time Switches	L&T, Siemens, ABB
39	Cable Joint	Raychem,Denson
40	Indoor type ON load Air Break Switch	MEI, Isotech India Pvt Ltd (Gurgaon) , HPL
41	Rubber Floor Mat 11 KV (ISI) (Elastometric)	Suntax, Tycoon
42	Synthetic Mat Confirming to IS : 15652 (2mm,2.5mm&3.0mm thick ISI marked ype Test approval from ERDA)	Electromat, Tycon, SaveBott
43	Changeover switch	L&T, Schneider
44	Auto transfer Switch	GE, Emerson,Asco
45	Sandwich Bus duct	L&T, Zucchini (Legrand), Control & Switchgear
46	Air Insulated Bus duct	Zukini – Legrand , Siemens – Sivacon, Schneider

47	HDPE Pipe	Dura-Line, Reliance
48	Solar Lighting	Bajaj, Philips
49	External Lighting Poles	Bajaj,GE,philips
50	External Lighting Fixture	Wipro, PHILIPS, Bajaj, Polycab

B. INTERNAL ELECTRICAL WORKS

A.	**Internal Electrical Works**	
1	MS black enameled/ galvanized ERW conduits.	AKG, ATUL PIPE, RMCON
2	M.S.Conduit Accessories	BEC, ATUL PIPE, AKG
3	GI pipes	RSCON, AKG, BEC
4	PVC conduit & accessories	BEC ,AKG,Atul pipes
5	Copper conductor PVC insulated wires	Havells, polycab, finolex
6	Modular Switches,Socket outlets & wiring accessories with moulded cover Plate	Simon, Crab tree, Legrand Schenider.
7	Heavy duty metal clad socket outlets with MCB in MS housing	Legrand, Siemens, Hager,HPL
8	Weather proof socket outlets with MCB	Legrand, Siemens, L&T, Schenider, ABB
9	Miniature Circuit Breaker	Legrand, Siemens, L&T, Schenider, ABB
10	Earth Leakage Circuit Breaker	Legrand, Siemens, L&T, Schenider, ABB
11	Timers & contactors to be mounted in DB	Siemens, Hager, Legrand,
12	MCB distribution boards in sheet steel housing (double door)	Siemens, Hager, Legrand, L&T , ABB
13	HDPE Conduits & accessories	Duraline, Reliance,
B.	**Distribution**	
1	KWH meters (Electronic Digital type)	Trinity, L&T, Secure
2	Sandwich Rising Main	Zukini – Legrand , Siemens – Sivacon, Schneider

3	Single Phase Preventer	L&T, Minilec,Legrand.
4	Motor Protection Circuit Breakers	Legrand, Siemens, L&T,
C	**Cables & Accessories**	
1	1100 Volts grade cables	Havells, polycab, finolex
2	Cable Lugs	Dowells, Jainson,kiran
3	Cable compressiopn glands	Peeco, Comet,kiran
4	Cable Trays/ Cable Ladders/raceway	Slotco, CTM ENGG, OBO,SWIFT/PROFAB
D	**Metering & Protection**	
1	Cast Resin Current Transformer	Gilbert Maxwell, Kappa, AE, Advance
2	Meter (Electronic digital/LCD)	L&T Rishab, Siemens, AE
3	Selector Switches	L&T Salzer, Kaycee
4	Indication Lamp (LED type)	L&T, Vaishno, Siemens
5	Energy Monitor/Trivector Meter	Neptune-Ducati, L&T, Trinity
6	Voltmeter, Ammeter	L&T Rishab, Siemens, AE
E	**MISCELLANEOUS**	
1	Invertor	Su-kam, Luminous, /power tron, BPE/Microtek
2	Ceiling Fans	Crompton, Usha, Havels,
3	Exhaust Fan	Alstom, Crompton Greaves, Havels, Almonard,USHA
4	Lamps	
	a) Fluorescent Lamp	Polycab, Wipro, Philips, Bajaj
	b)Compact Fluorescent Lamps	Polycab, Wipro, Philips, Bajaj
	C) Led Fitting and Fixture	Polycab, Wipro, Philips, Bajaj
5	Laminated sheet	Hylam, Formier
6	Splitters for SMATV System	Netgear, Catvision
7	XLPE L.T.Cable,1.1 KV Grade(FRLS)	Havells, polycab, finolex
8	Light Fixtures	Polycab, Philips,Bajaj
9	UPS	Pegasus-AAL, GE Power,ABB
10	CVT	Logicstat, Bluebird, Selvon, Max Power

11	Aviation Obstruction Light(LED Type)	Philips, Wipro
12	Exchange/Console Panel	Tata Telecom, Panasonic, Matrix
13	Handset	Tata Phone, Beetel, Panasonic, Siemens
14	Rubber Mats	Syntax, Tycoon(ISI), Elastomeric or equivalent
15	Tape Off	Cat Vision, Shyam
17	Hume Pipe	Pragati, Jain Spun, Daya Spun
19	PVC Pipe	Supreme, Finolex, Atul
20	Changeover switch	L&T, Schneider, Socomac.

NOTES :

1. Make of any other equipment/ material not mentioned above shall be got approved from the Engineer In-Charge.
2. Relevant catalogue to be submitted along with the offers.
3. Relevant Test Certificates to be produced for various equipment & material during billing process.

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