

Average full load currents of 3 phase squirrel cage motors

Power	200/		230v	380v	400v	415v	440v	433/		500/		660v	690v	750v	1000v
	208v	220v						460v	525v	575v					
kW	HP	A	A	A	A	A	A	A	A	A	A	A	A	A	A
0.37	0.5	2	1.8	2	1.03	0.98	-	0.99	1	1	0.8	0.6	-	-	0.4
0.55	0.75	3	2.75	2.8	1.6	1.5	-	1.36	1.4	1.21	1.1	0.9	-	-	0.6
0.75	1	3.8	3.5	3.6	2	1.9	2	1.68	1.8	1.5	1.4	1.1	-	-	0.75
1.1	1.5	5	4.4	5.2	2.6	2.5	2.5	2.37	2.6	2	2.1	1.5	-	-	1
1.5	2	6.8	6.1	6.8	3.5	3.4	3.5	3.06	3.4	2.6	2.7	2	-	-	1.3
2.2	3	9.6	8.7	9.6	5	4.8	5	4.42	4.8	3.8	3.9	2.8	-	-	1.9
3	-	12.6	11.5	-	6.6	6.3	6.5	5.77	-	5	-	3.8	3.5	-	2.5
-	5	-	-	15.2	-	-	-	-	7.6	-	6.1	-	-	-	3
4	-	16.2	14.5	-	8.5	8.1	8.4	7.9	-	6.5	-	4.9	4.9	-	3.3
5.5	7.5	22	20	22	11.5	11	11	10.4	11	9	9	6.6	6.7	-	4.5
7.5	10	28.8	27	28	15.5	14.8	14	13.7	14	12	11	6.9	9	-	6
9	-	36	32	-	18.5	18.1	17	16.9	-	13.9	-	10.6	10.5	-	7
11	15	42	39	42	22	21	21	20.1	21	18.4	17	14	12.1	11	9
15	20	57	52	54	30	28.5	28	26.5	27	23	22	17.3	16.5	15	12
18.5	25	70	64	68	37	35	35	32.8	34	28.5	27	21.9	20.2	18.5	14.5
22	30	84	75	80	44	42	40	39	40	33	32	25.4	24.2	22	17
30	40	114	103	104	60	57	55	51.5	52	45	41	34.6	33	30	23
23															
37	50	138	126	130	72	69	66	64	65	55	52	42	40	36	28
45	60	162	150	154	85	81	80	76	77	65	62	49	46.8	42	33
55	75	200	182	192	105	100	100	90	96	80	77	61	58	52	40
75	100	270	240	248	138	131	135	125	124	105	99	82	75.5	69	53
90	125	330	295	312	170	162	165	146	156	129	125	98	94	85	65
110	150	400	356	360	205	195	200	178	180	156	144	118	113	103	78



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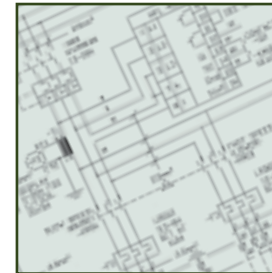
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Garnham Switchgear Ltd



Control Systems & Electrical Installations for Industry



Control Console



Power Control System



Control Console in situ

Reduced Cost = Higher Profit

Global warming and CO² emissions are the headline problems of our age but most businesses are more concerned with reducing power consumption and increasing efficiency.

M D Control Panels Ltd of Bury St Edmunds and Garnham Switchgear Ltd of Ipswich work together to provide customers with electronic systems to reduce costs for their businesses.

Why MD Control Panels & Garnham Switchgear..

Our wide range of clients work with us because they know their project is in safe hands. We recognise the importance of peace of mind and you can be confident that throughout the length of the project you will regularly be kept up to date with a progress report to ensure you are fully in the picture.

No hidden extras

When we take your brief we make sure that we fully understand the requirements of the project and then provide a detailed quotation for you. No one likes surprises and with ourselves there are no hidden extras.

Aftercare support

Once the project is complete we are able to offer a full service and maintenance contract to ensure your systems continue to run efficiently. With many of our projects we are able to offer remote access to the control systems to ensure down time is kept to a minimum and minor changes can be made without a site visit.



Complete Service

We offer a complete package of electrical service including design, control panel manufacture, installation and commissioning. Our systems manage anything from single heating systems to highly complex automated production processes.

- Design of Electrical Control / Power systems
- Build, test and installation of control panels to Customer's specification
- Software creation for PLC and SCADA including Mitsubishi, Siemens, Allen Bradley
- Full Electrical Installation package with NICEIC accreditation
- Service and Maintenance contracts to ensure installations continue to operate efficiently
- Fixed installation testing and inspection

Industry Sectors

Whilst we do work with "blue chip" companies on projects in excess of £100,000 most of our contracts are for smaller customers with contracts below £10,000. We have significant experience in the following industry sectors:

- Production Process
- Mechanical Handling Systems
- Water Filtration
- Climate Control
- Refrigeration
- Motor Control Systems
- Temperature Monitoring
- Emergency Lighting
- Energy Saving

Accreditations

MD Control Panels Ltd

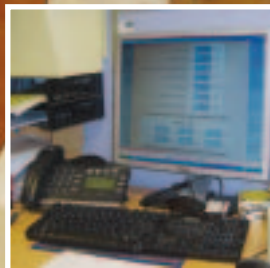
Garnham Switchgear Ltd



Fan and Burner Control



Vegetable Store Control



Remote Access





Some of the projects we have worked on...

Control Systems

Capable of loading ships at a rate of 1600 tonne/hour we built control systems for large conveyor operations used to load ships in Dubai, Peru and Panama.

Temperature Monitoring

Working for a major blue-chip food company we installed a complex temperature monitoring system with over 45 monitoring probes. This resulted in our client being able accurately measure and record room temperatures and show due diligence.

Energy Efficiency Projects

A recent project involved the conversion of Star Delta motors to an inverter operation which resulted in a 1 year pay back.

We can also offer a utilities monitoring package so you can see exactly where your usage is.

Dehumidification Projects

Changes in humidity can be a big problem and we have built and installed a range of dehumidification control systems in plant rooms including the Severn Road and Forth Road Bridges.

Water Filtration

We have worked with Water companies to install Sewage screen control panels involving complex requirements to improve water quality.

Working in Germany, Hungary and Dubai we have a wealth of experience in Power Station Cooling Water Intake systems. Using filtration processes our control systems are used to remove impurities in water to improve cooling processes.

Electrical Installations

We have worked on many high street retail stores electrical installation projects including lighting, air conditioning and heating systems. All work comes with NICEIC paperwork and meets current 17th edition wiring regulations.

Safety Gate Control System

We developed a safety gate control system within Felixstowe docks to ensure traffic movements within the docks could be carefully controlled.

Crop Storage Control Systems

Using integrated PLC/SCADA systems we have installed systems to ensure high value crops are carefully monitored and conditioned through out their storage period.

Food Processing Systems

Moving product around a food factory is a vital part of the efficiency of running the factory. We have worked on a cream yeast control system which regulated how the food ingredient was moved around the work flow.

