

3-PHASE INDUCTION MOTOR CENTRAL VACUUM POWER UNIT

SPECIFICATIONS FOR HAND CAR WASH

- Virtually any solution is available to suit the needs and requirements of all Hand Car Wash applications. However, the specifications attached are for the standard units stocked and usually readily available.



- It is considerably more efficient to use smaller motors with separate dirt separators with a maximum of two users than use larger motors with a single dirt separator and multiple hoses
- By splitting the workload you not only prolong the motor life and need for maintenance, but ducting remains clearer, blockages are less likely and pipe-work maintenance is reduced
- 100L and 150L Dirt separators are available
- Considerably more suction power when a single hose is used on single motor, than any standard commercial vacuum cleaner
- End of hose suction performance when the maximum number of hoses are used is no greater than a 3-motor single phase commercial vacuum cleaner, but the noise and reliability is considerably better. 50,000hrs of motor life is usual
- Ultra quiet – keep the neighbour happy
- Less electricity consumption than traditional commercial vacuums
- 5-Year Guarantee



- No trailing electric cables – especially where there is large quantities of water being used
- No cables to trip over
- No trailing power unit to bash doors and vehicle paintwork
- Eliminate the need to remove vacuums and store them indoors every night
- No mobile power unit to be abused by workers
- Filters that last for years
- British Built in our purpose built facility in Hereford
- Delivered by our own installer
- On-site support
- Easy to install by a competent DIYer
- No specialist electrical work required – simply get your electrician to provide the correct socket near the power unit location
- The commercial way to clean vehicles – conveys a professional job to the customer – help to justify your prices
- Over 200 systems already installed

SPECIFICATIONS FOR 3-PHASE INDUCTION MOTOR CAR WASH VACUUM CLEANERS					
MODEL	CVS1-2	CVS1-4	CVS3-2	CVS3-4	CVS3-5
DESCRIPTION	Single 2.2kW motor with 40 litre dirt separator and electronic control box with single phase in and three phase out inverter.	2 x 2.2kW motors with 2 x 40 litre dirt separators and electronic control box with 2 x single phase in and three phase out inverters.	Single 3.45kW motor with 40 litre dirt separator and electronic box with 3-phase 4kW inverter.	2 x 3.45kW motors with 2 x 40 litre dirt separators and electronic control box with 2 x 3-phase inverters.	1 x Single 7.5kW motor with a 150 litre dirt separator and electronic box with a 3-phase inverter.
NO. OF USERS	1/2	2/4	2	4	4-6
VOLTS IN Hz IN	220/240 50	220/240 50	380/415 50	380/415 50	380/415 50
VOLTS OUT Hz OUT to motor	200/240 3-phase 60	200/240 3-phase 60	380/415 3-phase 60	380/415 3-phase 60	380/415 3-phase 60
WATTS	2200	2 x 2200	3450	2 x 3450	7500
INLET VOLTS	24DC 50mA max	24DC 50mA max	24DC 50mA max	24DC 50mA max	24DC 50mA max
MAX CURRENT AMPS	14.8	2 x 14.8	8	2 x 8	19.1
AIR FLOW m³/h	306	612	372	744	660
VACUUM Motor manufacturers figures	230mbar 2347mm/92.4"	230mbar 2347mm/92.4"	280mbar 2845mm/112"	280mbar 2845mm/112"	300mbar 3048/120"
ACTUAL VACUUM 1-USER	361mbar 3683/145"	361mbar 3683/145"	443mbar 4521mm/178"	443mbar 4521mm/178"	361mbar 3683/145"
ACTUAL VACUUM 2-USERS	194mbar 1981mm/78"	361mbar 3683/145"	231mbar 2362/93"	231mbar 2362/93"	361mbar 3683/145"
ACTUAL VACUUM 3rd-USER		194mbar 1981mm/78"		443mbar 4521mm/178"	231mbar 2362/93"
ACTUAL VACUUM 4-USERS		194mbar 1981mm/78"		231mbar 2362/93"	231mbar 2362/93"
ACTUAL VACUUM 5-USER					194mbar 1981mm/78"
ACTUAL VACUUM 6-USER					149mbar 1524mm/60"
HEIGHT	1700mm	1700mm	1700mm	1700mm	Minimum 1750mm required
WIDTH	1100mm	1600mm	1100mm	1100mm	Minimum 1380mm required
DEPTH	600mm	600mm	600mm	600mm	Minimum 900mm required
NOISE dB With 300mm muffler	Less than 70	Less than 70	Less than 70	Less than 70	Less than 74
Max RPM	3500	2 x 3500	3500	2 x 3500	3500
INTAKE/EXHAUST SIZE mm	63/63 100mm off muffler	2 x 63/63 100mm off muffler	63/63 100mm off muffler	63/63 100mm off muffler	100/100 100mm off muffler
WEIGHT kg	118	174	118	174	205
OUTSIDE CABINET	To enable this unit to be mounted outside, the electronics are mounted inside an IP66 box and the entire power unit is encased in a metal cabinet with hinged doors and a high security lock. A C at the end of the part number denotes that the power unit is an outside encased model. EG. CVS1-2C	To enable this unit to be mounted outside, the electronics are mounted inside an IP66 box and the entire power unit is encased in a metal cabinet with hinged doors and a high security lock. This is a particularly large frame and therefore the size and weight of an encased machine is considerably more than the bare frame weight above.	To enable this unit to be mounted outside, the electronics are mounted inside an IP66 box and the entire power unit is encased in a metal cabinet with hinged doors and a high security lock. A C at the end of the part number denotes that the power unit is an outside encased model. EG. CVS3-2C	To enable this unit to be mounted outside, the electronics are mounted inside an IP66 box and the entire power unit is encased in a metal cabinet with hinged doors and a high security lock. This is a particularly large frame and therefore the size and weight of an encased machine is considerably more than the bare frame weight above.	If mounting this system outside, a bespoke cabinet is manufactured to suit the application.
NOTES	This power unit is specifically designed for applications where there is no 3-phase electricity available. Extremely good suction for a single hose, but this does reduce substantially when two hoses are used. Suitable for a small hand car wash or where a single hose is required with the second hose only used on occasions. Plenty of suction power for an ordinary application with two hoses, but hand car washes tend to want more power.	Designed for applications where there is no 3-phase electricity available and where 2 or more hoses are required, but especially powerful with two hoses. It will lose suction when 3 hoses are used, but this does not alter when the fourth hose is activated. A very healthy power supply will be required and a 32amp appropriately protected industrial socket to power the machine. Separate inverter protection is provided in the electronic box.	Our biggest selling unit with extremely good suction when two hoses used. Suitable for a small busy hand car wash. Can be programmed with different power settings depending how many hoses are being used to save electricity and reduce motor wear E.G. 40Hz for one user, increasing to 60Hz for two. The suction power can be increase even further, but no guarantee is provided when run on more than 60Hz.	Designed for a busy car wash where 4-hoses are required on a regular basis. The suction power is maintained regardless of which combination of hoses is used. By using separate dirt separators for each motor, the suction (waterlift) is maintained to a much higher level than using a larger single dirt collector. The filter surface is greater and the motor workload is spilt. Can be programmed with separate power settings as per the CVS3-2, and can have hugely more power, but no guarantee is given if working on more than 60Hz.	This system is supplied with the motor mounted in its own frame that also contains the electronic control box. The dirt separator stands adjacent within its own stand. The motor speed is electronically controlled to deliver more power as more hoses are plugged in or switched on. The suction power can be adjusted to suit, but the suction power does start to diminish when more than 4-hoses are used. More suited for offices, large buildings or other commercial applications.