

DESCRIPTION

The 8720/8721 ranges of transformer/rectifiers are intended for use with GEM80 controllers which are fed from 3 phase a.c. supplies and which include d.c. logic input/output blocks.

The units are designed to match the power requirements of 24V/48V d.c. plant devices connected to I/O blocks.

FEATURES

- 380/415/440V 3 phase input.
- Range of output ratings to suit application.
- Primary and secondary fuses included.

SPECIFICATION

Input : 380/415/440V +6%-10% adjustable $\pm 3\%$
in 1% steps
: 45 to 63 HZ 3 phase

Output (no load 8720 : 24V d.c. +17% -3%
to full load with : 26V typical
specified input 8721 : 48V d.c. +13% -9%
variation) : 50V typical

Note:- these figures ensure 24V/48V $\pm 10\%$ -15%
at terminals of driven device allowing
for volt drop in 8979 or 8980 d.c.
output block.

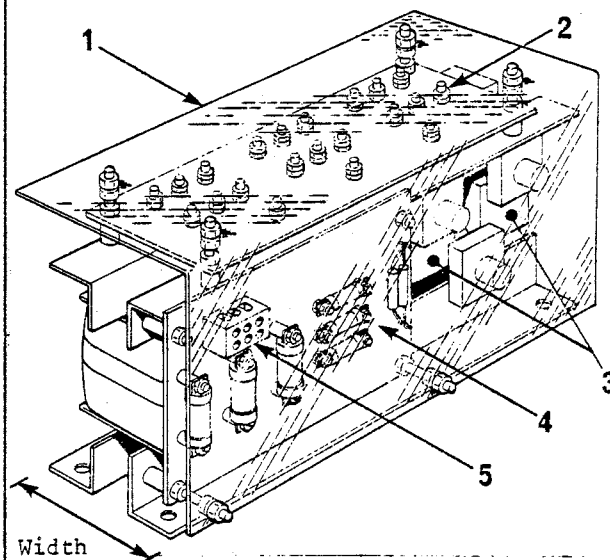
Mounting : base mounting on horizontal surface

Temperature : 0 to 50°C operating at full load,
derating to 50% at 70°C
: -20 to 70°C storage

Humidity : 10 to 90% non-condensing

Input : screw clamp suitable for
terminals conductors up to 4 mm²

8720/8721 Plant side power supplies (24/48V d.c. plant devices)



Illustrated:-

8720 4002)

8721 4003) rated 10 Amp

1. Transparent Shroud over terminals.

2. Link Board (primary taps)

3. Output terminals

4. Fuse board

5. Input terminals

Table 1 continued.

Type	8720					8721			
Fixing hole $\varnothing$ (mm)	6	7	7	7	7	6	7	7	7
Output terminal size	* M6	M6	M6	M6	M8	* M6	M6	M6	M6
Fuse rating : Input (A)	3	6	10	10	16	3	6	10	10
: Output	5	15	25	55	75	5	15	25	50

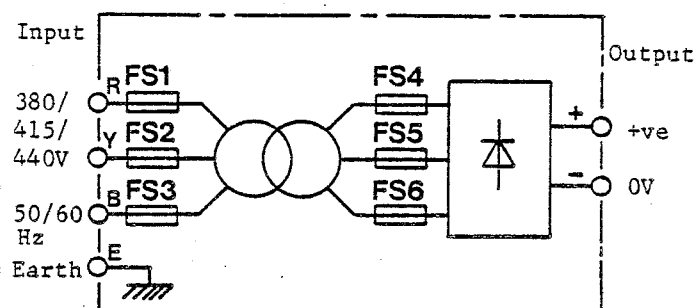
* Hellerman griptite $\frac{1}{2}$ inch

Table 1 Rating dependent data

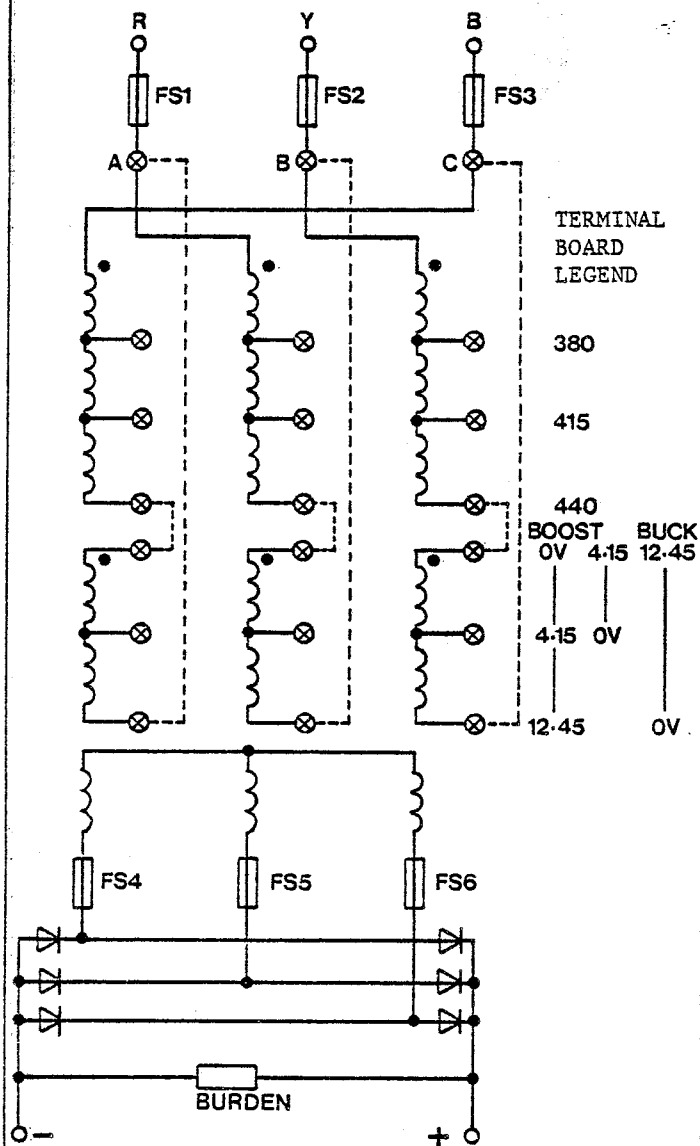
Type	8720					8721				
	4	4	4	4	4	4	4	4	4	4
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	2	3	4	5	2	3	4	5	5
Full load current (A)	3	10	20	40	60	3	10	20	30	30
Losses : No load (W)	11	26	45	84	136	15	40	75	100	100
: Full load	16	54	98	191	297	28	86	141	299	299
Overall : High dimensions: Wide (mm)	160	205	226	350	350	160	205	230	320	320
: Deep	140	170	190	180	180	140	170	190	192	192
	250	350	402	380	424	250	350	402	390	390
Weight (kg)	3.2	7	12.5	24	45	3.6	7.5	15	18.5	18.5
Fixing Centres: Wide (mm)	63	67	78	105	105	63	67	78	92	92
: Deep	230	330	382	360	404	230	330	382	370	370

APPLICATION NOTES

1. REPRESENTATION FOR SYSTEM DIAGRAM



2. INTERNAL CIRCUIT



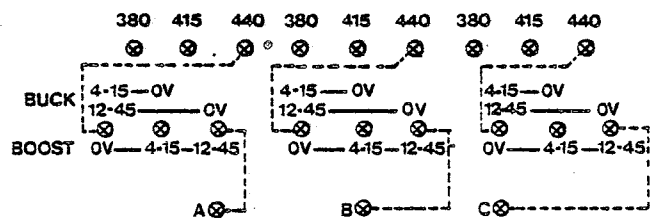
KEY

- ⊗ Terminal on link board
- User wiring on link board (shown for 440V +3%)

NOTES

1. Each primary comprises a main winding and a series winding which can be buck or boost connected to compensate for steady state AC voltage variation, AC cable volt drop, or to trim DC output.
2. For nominal 380/415/440 V input, the auxiliary windings are left open circuit.
3. The terminal board has a dual legend for the buck/boost options. In each case the "low" ends of the auxiliary windings are connected to the 380/415/440 V terminals of the main windings and the "high" ends to the A/B/C terminals.

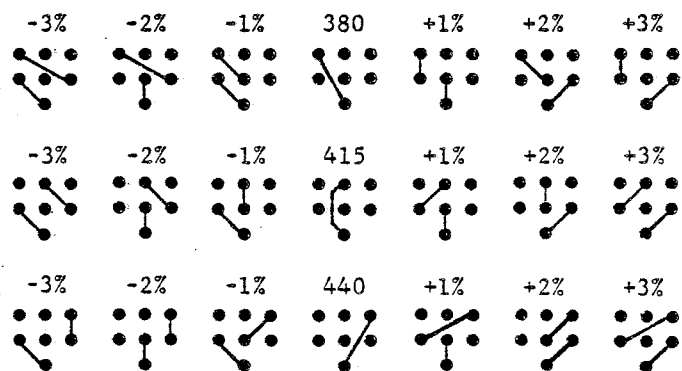
3. PHYSICAL LAYOUT OF LINK BOARD



KEY

- User wiring (shown for 440V +3%)

4. LINK SETTINGS FOR EACH PHASE



5. ASSOCIATED PRODUCTS

For low power ratings, single phase regulated power packs are comparable in cost with 3 phase transformer/rectifiers.

For simplicity of ordering the following units manufactured by Coutant Electronics Ltd. have been allocated 8720/1 reference numbers:-

GEC ref.	Coutant ref	Input	Output
8720 4011	ASC500/26/0V/110-I/P	110V+10%	26V 5A
8720 4021	ASC500/26/0V/240-I/P	240V+10%	26V 5A
8721 4011	ASD100/50/0V/110-I/P	110V+10%	50V 1A
8721 4021	ASD100/50/0V/240-I/P	240V+10%	50V 1A
8721 4012	ASD300/50/0V/110-I/P	110V+10%	50V 3A
8721 4022	ASD300/50/0V/240-I/P	240V+10%	50V 3A

All units single phase a.c. input 45 to 65 Hz
Operating temperature -10 to 65°C.

Refer to manufacturer's literature ("A" series units) for further details.

ORDERING CODES

1. EQUIPMENT

Nominal output	Nominal input		Order Code
26V 3A	380/415/440V	3Ø	8720 4001
26V 5A	110V	1Ø	8720 4011
26V 5A	240V	1Ø	8720 4021
26V 10A	380/415/440V	3Ø	8720 4002
26V 20A	380/415/440V	3Ø	8720 4003
26V 40A	380/415/440V	3Ø	8720 4004
26V 60A	380/415/440V	3Ø	8720 4005
50V 1A	110V	1Ø	8721 4011
50V 1A	240V	1Ø	8721 4021
50V 3A	110V	1Ø	8721 4012
50V 3A	240V	1Ø	8721 4022
50V 3A	380/415/440V	3Ø	8721 4002
50V 10A	380/415/440V	3Ø	8721 4003
50V 20A	380/415/440V	3Ø	8721 4004
50V 30A	380/415/440V	3Ø	8721 4005

2. SPARES

Unit type	Device ref.	Type	Manufacturer
8720)	FS1-3	L693 3A	Belling Lee
4001)	FS4-6	GSA5	GEC Fusegear
	Rectifier	PM81A2Q)	AEI Semiconductors
		PM82A2Q)	
8720)	FS1-3	NIT6	GEC Fusegear
4002)	FS4-6	GSA10	" "
	Rectifier	PH2074/462	AEI Semiconductors
8720)	FS1-3	NIT10	GEC Fusegear
4003)	FS4-6	GSA25	" "
	Rectifier	PH2073/462	AEI Semiconductors
8720)	FS1-3	NIT10	GEC Fusegear
4004)	FS4-6	GSG1000/55	" "
	Rectifier	PH2072/462	AEI Semiconductors
720)	FS1-3	NIT16	GEC Fusegear
4005)	FS4-6	GSG1000/75	" "
	Rectifier	PH2071/462	AEI Semiconductors

Unit Type	Device ref.	Type	Manufacturer
8721)	FS1-3	L693 3A	Belling Lee
4002)	FS4-6	GSA5	GEC Fusegear
	Rectifier	PM81A2Q)	AEI Semiconductors
		PM82A2Q)	
8721)	FS1-3	NIT6	GEC Fusegear
4003)	FS4-6	GSA15	" "
	Rectifier	PH2074/462	AEI Semiconductors
8721)	FS1-3	NIT10	GEC Fusegear
4004)	FS4-6	GSA25	" "
	Rectifier	PH2073/462	AEI Semiconductors
8721)	FS1-3	NIT10	GEC Fusegear
4005)	FS4-6	GSA50	" "
	Rectifier	PH2073/462	AEI Semiconductors

Note The Company's policy is one of continuous development and improvement and therefore the right is reserved to supply products which may differ in detail from those described and illustrated in this publication. All our products and materials are sold subject to Conditions of Sale available from us on request

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