

NIDEC MOTOR CORPORATION

8050 WEST FLORISSANT AVE.
ST. LOUIS, MO 63136



DATE: 8/16/2023

P.O. NO.: BV11
Order/Line NO.: 19823 MN 100

TO:

Model Number: BV11
Catalog Number: UN10T2BC
Warning
MOD,NOTES

REVISIONS:
(NONE)

**ALL DOCUMENTS HEREIN ARE CONSIDERED CERTIFIED BY NIDEC MOTOR CORPORATION.
THANK YOU FOR YOUR ORDER AND THE OPPORTUNITY TO SERVE YOU.**

Features:

Horsepower 00010.00 ~ KW: 7.46
Enclosure TENV
Poles 04 ~ RPM: 1800
Frame Size 215~TC
Phase/Frequency/Voltage.. 3~060~230/460 ~ Random Wound
Service Factor 1.00
Insulation Class Class "F" ~ Insulife 2000
Altitude In Feet (Max) .. 3300 Ft.(1000 M)
Ambient In Degree C (Max) +40 C
Assembly Position Fl, Ftls, Flng Mnt, Shaft Horz
Efficiency Class Premium Efficiency
Application Unknown
Customer Part Number
Inverter Duty Rating:
Load Type (Base Hz & Below) .. Constant Torque
Constant HP Above Base Hz
Speed Range (Base Hz & Below). Vector Duty (0-Base Hz)
1:2 Above Base Hz
"AK" Dimension (Inches).. 8.500
Temperature Rise (Sine Wave): "F" Rise @ 1.0 SF (Resist)
Starting Method Direct-On-Line Start
Duty Cycle Continuous Duty
Load Inertia (lb-ft²): NEMA ~ NEMA Inertia: 51.40 ~ 1.00
Number Of Starts Per Hour: NEMA
Motor Type Code UTX
Rotor Inertia (LB-FT²) 1.33 LB-FT²
Qty. of Bearings PE (Shaft) 1
Qty. of Bearings SE (OPP) 1
Bearing Number PE (Shaft) 6208-2Z-J/C3
Bearing Number SE (OPP) 6206-2Z-J/C3

Nidec trademarks followed by the ® symbol are registered with the U.S. Patent and Trademark Office.

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Accessories:

Special Balance
Thermostats - Normally Closed
VFD Duty
Conduit Box Information: ~ Std. Oversized- Std. Const.
Conduit Opening Size (AA) .. 1" NPT
1 Conduit Opening ~ Bottom Of Conduit Box
Standard Leadtime: REFER TO OFFICE
Est. Weight (lbs ea): 120 ~ F.O.B.: St. Louis, MO

USE THE DATA PROVIDED BELOW TO SELECT THE APPROPRIATE DIMENSION PRINT

Horsepower	10
Pole(s)	04
Voltage(s)	460-230
Frame Size	215TC
Shaft U Diameter	1.375
Outlet Box AF	2.13
Outlet Box AA	1

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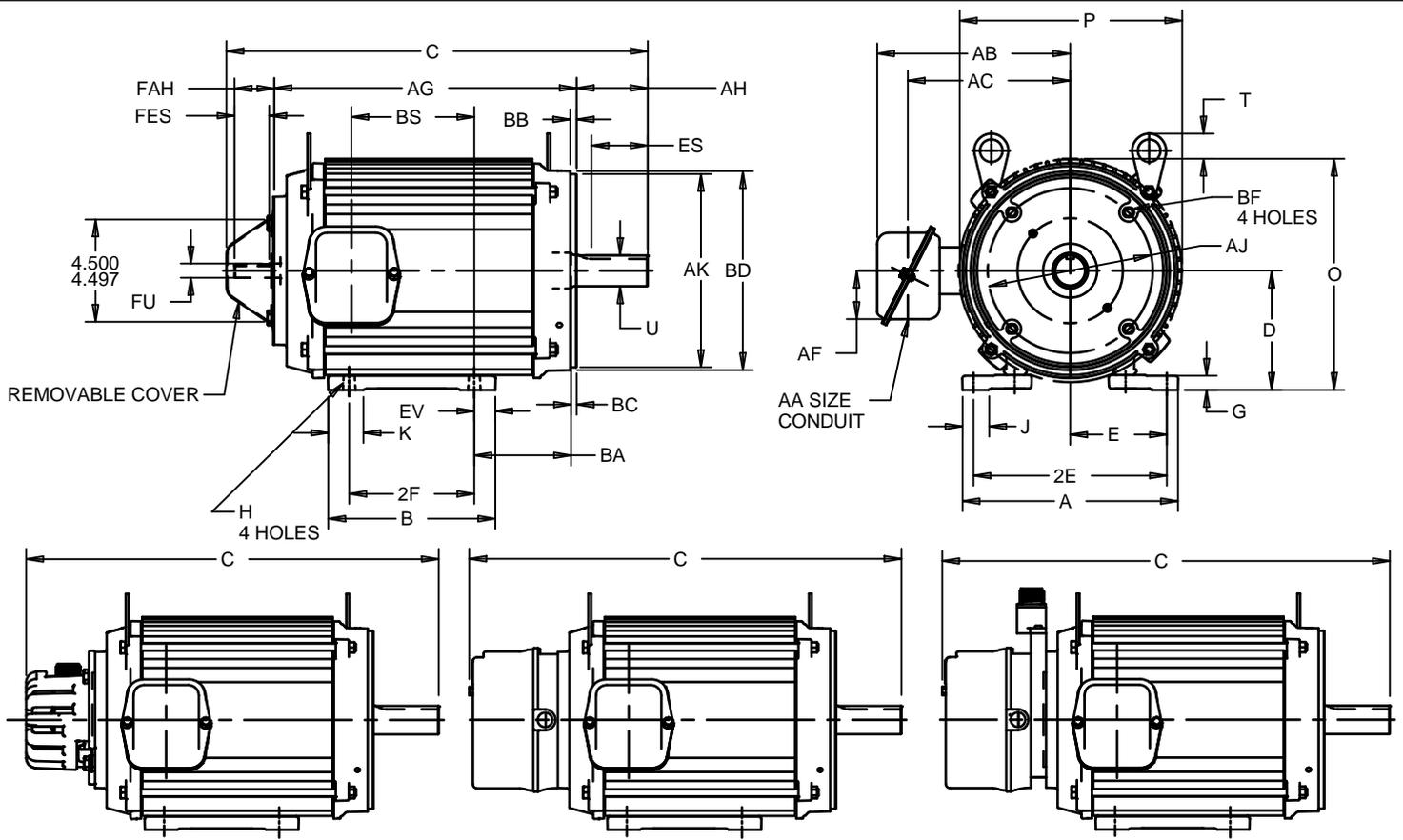
EFFECTIVE:
16-OCT-13

DIMENSION PRINT
UNIMOUNT VECTOR DUTY
FRAME: 213TC, 215TC
BASIC TYPE: UTXN

PRINT:
07-2754

SUPERSEDES:
02-JUN-09

SHEET:
1 OF 1



DYNAPAR ENCODER KIT ADD 1.20" TO THE 'C' DIMENSION
EPC ENCODER KIT ADD 0.76" TO THE 'C' DIMENSION

BRAKE ADD 2.13" TO THE 'C' DIMENSION

BRAKE WITH SL56 ADD 2.87" TO THE 'C' DIMENSION
BRAKE WITH 770 ADD 3.11" TO THE 'C' DIMENSION

ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS

UNITS	A	D -.06	E	2E ±.03	G	H +.05	J	K	O	P ²
IN	9.50	5.25	4.25	8.50	.63	.41	1.16	1.56	10.21	9.72
MM	241	133	108	216	16	11	29	40	259	247

UNITS	T	U -.0005	AA	AB	AC	AF	AH	AJ	AK -.003	BA
IN	1.07	1.375	1.38	8.52	7.21	2.13	3.12	7.250	8.500	4.25
MM	27	34.925	35	216	183	54	79	184.15	215.90	108

UNITS	BB MIN	BC	BD MAX	BF ⁴	ES MIN	EV	FAH	FES	FU -.0005	SE SQ KEY	PE SQ KEY
IN	.25	.25	8.75	1/2-13 X .81	2.41	.94	1.75	1.50	.6250	.188	.312
MM	6	6	222		61	24	44	38	15.875	4.78	7.92

FRAME	HP	UNITS	C	AG	BS	2F ±.03	B
213TC	7.5	IN	20.02	14.80	6.94	5.50	7.38
		MM	509	376	176	140	187
	3	IN	18.52	13.30	5.40	5.50	7.38
		MM	370	338	137	140	187
215TC	10	IN	23.02	17.80	9.94	7.00	8.88
		MM	585	452	250	178	224
	5	IN	20.02	14.80	6.94	7.00	8.88
		MM	509	376	176	178	224

TOLERANCES	
FACE RUNOUT	.004 T.I.R.
PERMISSIBLE ECCENTRICITY OF MOUNTING RABBET	.004 T.I.R.
PERMISSIBLE SHAFT RUNOUT	.002 T.I.R.

- ALL ROUGH DIMENSIONS MAY VARY BY .25" DUE TO CASTING AND/OR FABRICATION VARIATIONS.
- LARGEST MOTOR WIDTH.
- CONDUIT OPENINGS MAY BE LOCATED IN STEPS OF 90 DEGREES REGARDLESS OF LOCATION. STANDARD AS SHOWN WITH CONDUIT OPENING DOWN.
- TAP SIZE AND BOLT PENETRATION ALLOWANCE.
- ALL TAPPED HOLES ARE UNIFIED NATIONAL COARSE, RIGHT HAND THREAD.
- TOLERANCES SHOWN ARE IN INCHES ONLY.
- FRAME REFERENCE: 8.250/182/9.000/184

07-2754/B

Nidec Motor Corporation
St. Louis, Missouri

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ISSUED BY
R. KING
APPROVED BY
J. O'BRIEN

IHP_DP_NMCA (MAR-2011) SOLIDEDGE

NAMEPLATE DATA

CATALOG NUMBER: <input style="width: 150px;" type="text" value="UN10T2BC"/>	NAMEPLATE PART #: <input style="width: 150px;" type="text" value="422699-005"/>
MODEL <input style="width: 60px;" type="text" value="BV11"/> <input style="width: 60px;" type="text" value="FR"/> <input style="width: 60px;" type="text" value="215TC"/>	TYPE <input style="width: 60px;" type="text" value="UTNX"/> ENCL <input style="width: 60px;" type="text" value="TE"/>
SHAFT END BRG <input style="width: 150px;" type="text" value="6208-2Z-J/C3 - QTY 1"/>	OPP END BRG <input style="width: 150px;" type="text" value="6206-2Z-J/C3 - QTY 1"/>
PH <input style="width: 40px;" type="text" value="3"/> MAX AMB <input style="width: 60px;" type="text" value="40 C"/>	ID# <input style="width: 150px;" type="text"/>
INSUL CLASS <input style="width: 40px;" type="text" value="F"/> Asm. Pos. <input style="width: 150px;" type="text"/>	DUTY <input style="width: 150px;" type="text" value="CONT"/>
HP <input style="width: 40px;" type="text" value="10"/> <input style="width: 60px;" type="text"/> RPM <input style="width: 40px;" type="text" value="1775"/> <input style="width: 60px;" type="text"/>	HP <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/> RPM <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/>
VOLTS <input style="width: 40px;" type="text" value="460"/> <input style="width: 40px;" type="text" value="230"/> <input style="width: 60px;" type="text"/>	VOLTS <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/>
FL AMPS <input style="width: 40px;" type="text" value="12.7"/> <input style="width: 40px;" type="text" value="25.3"/> <input style="width: 60px;" type="text"/>	FL AMPS <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/>
SF AMPS <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/>	SF AMPS <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 60px;" type="text"/>
SF <input style="width: 40px;" type="text" value="1.00"/> DESIGN <input style="width: 40px;" type="text" value="A"/> CODE <input style="width: 40px;" type="text" value="M"/>	SF <input style="width: 40px;" type="text"/> DESIGN <input style="width: 40px;" type="text"/> CODE <input style="width: 40px;" type="text"/>
NEMA NOM EFFICIENCY <input style="width: 40px;" type="text" value="93.0"/> NOM PF <input style="width: 40px;" type="text" value="79.6"/> KiloWatt <input style="width: 40px;" type="text" value="7.5"/>	NEMA NOM EFFICIENCY <input style="width: 40px;" type="text"/> NOM PF <input style="width: 40px;" type="text"/>
GUARANTEED EFFICIENCY <input style="width: 40px;" type="text" value="91.7"/> MAX KVAR <input style="width: 40px;" type="text"/> HZ <input style="width: 40px;" type="text" value="60"/>	GUARANTEED EFFICIENCY <input style="width: 40px;" type="text"/> MAX KVAR <input style="width: 40px;" type="text"/> HZ <input style="width: 40px;" type="text"/>

HAZARDOUS LOCATION DATA (IF APPLICABLE):

DIVISION <input style="width: 100px;" type="text"/>	CLASS I <input style="width: 100px;" type="text"/>	GROUP I <input style="width: 100px;" type="text"/>
TEMP CODE <input style="width: 100px;" type="text"/>	CLASS II <input style="width: 100px;" type="text"/>	GROUP II <input style="width: 100px;" type="text"/>



VFD DATA (IF APPLICABLE):

VOLTS <input style="width: 60px;" type="text" value="460"/> <input style="width: 60px;" type="text" value="230"/>	AMPS <input style="width: 60px;" type="text" value="13.3"/> <input style="width: 60px;" type="text" value="26.6"/>
TORQUE 1 <input style="width: 150px;" type="text" value="29.6LB-FT"/>	TORQUE 2 <input style="width: 150px;" type="text" value="29.6-14.8LB-FT"/>
VFD LOAD TYPE 1 <input style="width: 150px;" type="text" value="CT/VEC"/>	VFD LOAD TYPE 2 <input style="width: 150px;" type="text" value="CHP/VEC"/>
VFD HERTZ RANGE 1 <input style="width: 150px;" type="text" value="0-60"/>	VFD HERTZ RANGE 2 <input style="width: 150px;" type="text" value="60-120"/>
VFD SPEED RANGE 1 <input style="width: 150px;" type="text" value="0-1800"/>	VFD SPEED RANGE 2 <input style="width: 150px;" type="text" value="1800-3600"/>
SERVICE FACTOR <input style="width: 60px;" type="text" value="1.00"/>	FL SLIP <input style="width: 60px;" type="text" value="25"/>
NO. POLES <input style="width: 60px;" type="text" value="4"/>	MAGNETIZING AMPS <input style="width: 60px;" type="text" value="6.4"/>
VECTOR MAX RPM <input style="width: 60px;" type="text" value="3600"/>	Encoder PPR <input style="width: 60px;" type="text"/>
Radians / Seconds <input style="width: 60px;" type="text" value="5.25"/>	Encoder Volts <input style="width: 60px;" type="text"/>

TEAO DATA (IF APPLICABLE):

HP (AIR OVER) <input style="width: 60px;" type="text"/>	HP (AIR OVER M/S) <input style="width: 60px;" type="text"/>	RPM (AIR OVER) <input style="width: 60px;" type="text"/>	RPM (AIR OVER M/S) <input style="width: 60px;" type="text"/>
FPM AIR VELOCITY <input style="width: 60px;" type="text"/>	FPM AIR VELOCITY M/S <input style="width: 60px;" type="text"/>	FPM AIR VELOCITY SEC <input style="width: 60px;" type="text"/>	

ADDITIONAL NAMEPLATE DATA:

Decal / Plate	WD=344136	Customer PN	
Notes		Non Rev Ratchet	
Max Temp Rise		OPP/Upper Oil Cap	GREASE
Thermal (WDG)	OVER TEMP PROT 2	SHAFT/Lower Oil Cap	GREASE
Altitude		Usable At	
Regulatory Notes		Regulatory Compliance	
COS		Marine Duty	
Balance	0.08 IN/SEC	Arctic Duty	
3/4 Load Eff.	92.8	Inrush Limit	
Motor Weight (LBS)	120	Direction of Rotation	
Sound Level		Special Note 1	
Vertical Thrust (LBS)		Special Note 2	
Thrust Percentage		Special Note 3	
Bearing Life		Special Note 4	
Starting Method		Special Note 5	
Number of Starts		Special Note 6	
200/208V 60Hz Max Amps		SH Max. Temp.	
190V 50 hz Max Amps		SH Voltage	
380V 50 Hz Max Amps		SH Watts	
NEMA Inertia		Load Inertia	
Sumpheater Voltage		Sumpheater Wattage	
Special Accessory Note 1		Special Accessory Note 16	
Special Accessory Note 2		Special Accessory Note 17	
Special Accessory Note 3		Special Accessory Note 18	
Special Accessory Note 4		Special Accessory Note 19	
Special Accessory Note 5		Special Accessory Note 20	
Special Accessory Note 6		Special Accessory Note 21	
Special Accessory Note 7		Special Accessory Note 22	
Special Accessory Note 8		Special Accessory Note 23	
Special Accessory Note 9		Special Accessory Note 24	
Special Accessory Note 10		Special Accessory Note 25	
Special Accessory Note 11		Special Accessory Note 26	
Special Accessory Note 12		Special Accessory Note 27	
Special Accessory Note 13		Special Accessory Note 28	
Special Accessory Note 14		Special Accessory Note 29	
Special Accessory Note 15		Special Accessory Note 30	
Heater in C/B Voltage		Heater in C/B Watts	
Zone 2 Group		Division 2 Service Factor	
Note 1		Note 2	
Note 3		Note 4	
Note 5		Note 6	
Note 7		Note 8	
Note 9		Note 10	
Note 11		Note 12	
Note 13		Note 14	
Note 15		Note 16	
Note 17		Note 18	
Note 19		Note 20	
Note 21		Note 22	

**NIDEC MOTOR CORPORATION
ST. LOUIS, MO**

TYPICAL NAMEPLATE DATA
ACTUAL MOTOR NAMEPLATE LAYOUT MAY VARY
SOME FIELDS MAY BE OMITTED



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MOTOR PERFORMANCE

MODEL NO.	CATALOG NO.	PHASE	TYPE	FRAME
BV11	UN10T2BC	3	UTNX	215TC
ORDER NO.		19823	LINE NO.	
MPI:			114410	114411
HP:			10	10
POLES:			4	4
VOLTS:			460	230
HZ:			60	60
SERVICE FACTOR:			1	1
EFFICIENCY (%):				
S.F.				
FULL			93	93
3/4			92.8	92.8
1/2			91.4	91.4
1/4			85.9	85.9
POWER FACTOR (%):				
S.F.				
FULL			79.6	79.6
3/4			73.3	73.3
1/2			61.4	61.4
1/4			39.2	39.2
NO LOAD			5.1	5.1
LOCKED ROTOR			44.7	44.7
AMPS:				
S.F.				
FULL			12.7	25.3
3/4			10.3	20.7
1/2			8.3	16.7
1/4			6.9	13.9
NO LOAD			6.4	12.9
LOCKED ROTOR			138	275
NEMA CODE LETTER			M	M
NEMA DESIGN LETTER			A	A
FULL LOAD RPM			1775	1775
NEMA NOMINAL / EFFICIENCY (%)			93	93
GUARANTEED EFFICIENCY (%)			91.7	91.7
MAX KVAR			4.3	4.4
AMBIENT (°C)			40	40
ALTITUDE (FASL)			3300	3300
SAFE STALL TIME-HOT (SEC)			18	18
SOUND PRESSURE (DBA @ 1M)			0	0
TORQUES:				
BREAKDOWN{% F.L.}			519	519
LOCKED ROTOR{% F.L.}			416	416
FULL LOAD{LB-FT}			29.6	29.6

NEMA Nominal and Guaranteed Efficiencies are up to 3,300 feet above sea level and 25 ° C ambient.

The Above Data Is Typical, Sinewave Power Unless Noted Otherwise

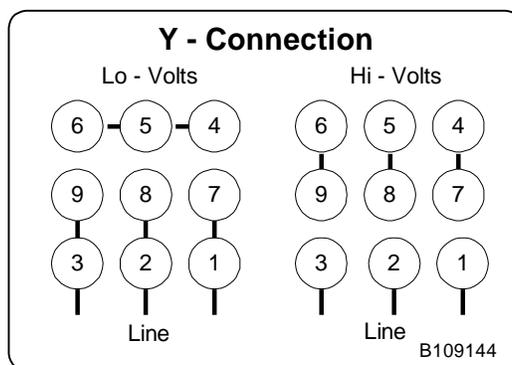
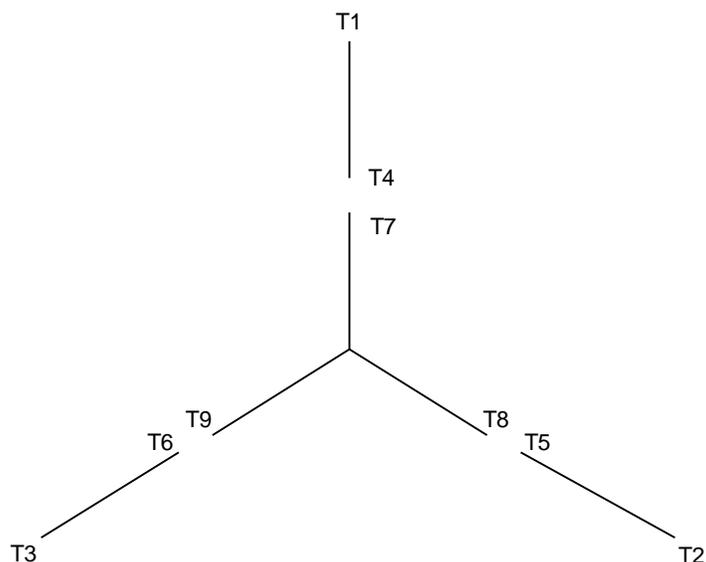
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ST. LOUIS, MO





B109144

Motor Wiring Diagram 9 Lead, Dual Voltage (WYE Conn.)



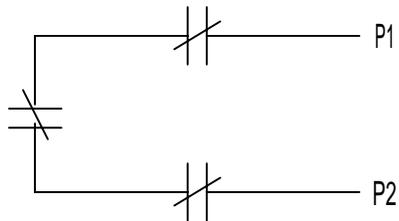
To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.
In such case each cable will be marked with the appropriate lead number.

THERMOSTATS

1. MOTOR IS EQUIPPED WITH QTY-3 (1 PER PHASE) NORMALLY CLOSED THERMOSTATS. THERMOSTATS ARE SET TO OPEN AT HIGH TEMPERATURE.
2. CONTACT RATINGS FOR THERMOSTATS: 120-600 VAC, 720 VA

N. C. THERMOSTATS



NOTE: THERMOSTATS LEADS MAY BE LOCATED IN EITHER THE MAIN OUTLET BOX OR IF SO EQUIPPED, AN AUXILIARY BOX.

ACCESSORY LISTING
QTY-3 N.C. THERMOSTATS

REVISION DESCRIPTION FOR: MISC	SCALE NONE	UNITS IN	CUSTOMER CONNECTION DIAGRAM		NIDEC MOTOR CORPORATION		
STL0211 - UPDATED FORMAT .	TOLERANCES ON DIMENSIONS (UNLESS OTHERWISE SPECIFIED)						
MATERIAL: ---	<u>INCHES</u>	<u>mm</u>	ISSUED BY R. KING	APPROVED BY C. CADE	REVISION DATE 24-FEB-11		
MUST BE COMPLIANT TO RoHS DIRECTIVE EU 2002/95/IEC AND REGULATION EC 1907/2006 (REACH) AS AMENDED	ANGLES X°= ±1°		CODE	DWG NO. 0834066	REV G	SHEET NUMBER 1 OF 1	DWG SIZE A